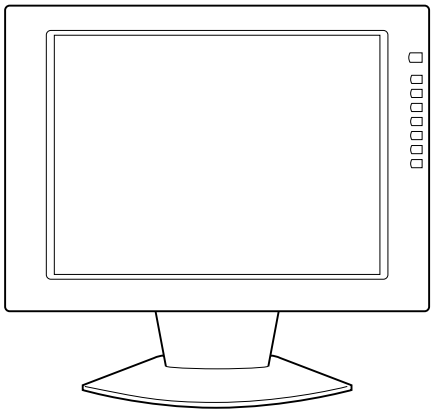
CPD-L181A

SERVICE MANUAL

US Model
Canadian Model
AEP Model

Chassis No. SCC-G25E-A



SPECIFICATIONS

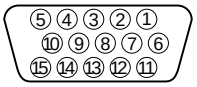
LCD panel	Panel type: a-Si TFT Active Matrix Picture size: 18.1 inches (46 cm)
Input signal format	RGB operating frequency* fh: 30 – 92 kHz fv: 48 – 85 Hz
Pixel efficiency	99.99 %
Resolution	H: max. 1280 dots V: max. 1024 lines
Power requirements	Input: DC 20 V (using the AC adapter)
Power consumption	Monitor only: 3.0 A Including the AC adapter: 0.7 A
AC adapter	Type: AC-L181A Input rating: AC 100 – 240 V, 50 – 60 Hz Max 1.2 A Output rating: DC 20 V, 5 A
Dimensions (w/h/d)	Including the stand: Approx. 468 × 422 × 207.5 mm (18 1/2 × 16 5/8 × 8 1/4 in.) Monitor only: Approx. 468 × 354.5 × 95 mm (18 1/2 × 14 × 3 3/4 in.)
Mass	Approx. 9 kg (19 lb 14 oz) including the stand
Plug & Play	DDC/DDC2B/DDC2Bi
Supplied accessories	LCD monitor (1) Rear cover (1) Power cord (1) AC adapter (1) HD15 video signal cable (1) Macintosh adapter (1) Windows Monitor Information Disk/Utility Disk (1) Macintosh Utility Disk (1) Warranty card (1) These operating instructions (1)

*** Recommended horizontal and vertical timing conditions**

Horizontal sync width duty should be more than 4.8% of total horizontal time or 0.8 µsec., whichever is larger.
Horizontal blanking width should be more than 2.5 µsec.
Vertical blanking width should be more than 450 µsec.

Design and specifications are subject to change without notice.

1/2 pin assignment



Pin No.	Signal	Pin No.	Signal
1	Red	8	Blue Ground
2	Green (Composite Sync on Green)	9	DDC + 5V*
		10	Ground
		11	ID (Ground)
3	Blue	12	Bi-Directional Data (SDA)*
4	ID (Ground)		
5	DDC Ground*	13	H. Sync
6	Red Ground	14	V. Sync
7	Green Ground	15	Data Clock (SCL)*

* Display Data Channel (DDC) Standard of VESA

TFT LCD COLOR COMPUTER DISPLAY

SONY®

MICROFILM

DIAGNOSIS

Failure	Power LED
Aging	Blink Amber (On 0.5 sec, Off 0.5 sec) .... Blink Green (On 0.5 sec, Off 0.5 sec)
Out of Scan Range	On Green

*Aging mode ..... Press MENU key for longer than 5 second.

Power Saving Function

This monitor meets the power-saving guidelines set by VESA and ENERGY STAR, as well as the more stringent NUTEK .
If the monitor is connected to a computer or video graphics board that is VESA DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown below.
You can set the delay time before the monitor enters the power saving mode using the OSD. Set the time according to "Setting the Power Saving Delay Time" on page 1-6.

* Power consumption of the monitor only. The figures in parentheses are power consumption of the monitor including the AC adapter.

** "Sleep" and "deep sleep" are power saving modes defined by the Environmental Protection Agency.

*** When your computer enters the power saving mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After the time set in "Changing the Power Saving Delay Time" (page 1-6) has elapsed, the monitor enters the power saving mode.

	Power consumption mode	Power consumption*	⏻ Indicator
1	Normal operation	≤ 65 W (≤ 75W)	Green
2	Standby (1st mode)	≤ 1 W (≤ 5W)	Green and orange alternate
3	Suspend (2nd mode) (sleep)**	≤ 1 W (≤ 5W)	Green and orange alternate
4	Active-off (3rd mode)*** (deep sleep)**	≤ 1 W (≤ 5W)	Orange
5	Power-off	≤ 1 W (≤ 5W)	Off

TIMING SPECIFICATION

PRIMARY MODE MODE AT PRODUCTION	MODE 0	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5	MODE 6	MODE 7
RESOLUTION	640 X 480	640 X 480	640 X 480	640 X 480	720 X 400	720 X 400	—	720 X 480
CLOCK	25.175 MHZ	30.240 MHZ	31.500 MHZ	36.000 MHZ	28.350 MHZ	35.500 MHZ	—	31.505 MHZ
— HORIZONTAL —								
H-FREQ	31.469 kHz	35.000 kHz	37.500 kHz	43.269 kHz	31.500 kHz	37.927	—	35.162 kHz
	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	31.778	28.571	26.667	23.111	31.746	26.366	—	28.440
H. BLK	6.356	7.407	6.349	5.333	6.349	6.085	—	5.586
H. FP	0.636	2.116	0.508	1.556	0.635	1.014	—	1.079
H. SYNC	3.813	2.116	2.032	1.556	3.810	2.028	—	1.270
H. BP	1.907	3.175	3.810	2.222	1.905	3.042	—	3.238
H. ACTIV	25.422	21.164	20.317	17.778	25.397	20.282	—	22.854
— VERTICAL —								
V. FREQ(HZ)	59.940 Hz	66.667 Hz	75.000 Hz	85.008 Hz	70.156 Hz	85.039	—	59.901 Hz
	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	525	525	500	509	449	446	—	587
V. BLK	45	45	20	29	49	46	—	107
V. FP	10	3	1	1	12	1	—	12
V. SYNC	2	3	3	3	3	3	—	2
V. BP	33	39	16	25	34	42	—	93
V. ACTIV	480	480	480	480	400	400	—	480
— SYNC —								
INT(G)	NO	NO	NO	NO	NO	NO	—	NO
EXT(H/V)/POLARITY	YES N/N	YES N/N	YES N/N	YES N/N	YES N/P	YES N/P	—	YES N/N
EXT(CS)/POLARITY	NO	NO	NO	NO	NO	NO	—	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	—	NON INT

PRIMARY MODE MODE AT PRODUCTION	MODE 8	MODE 9	MODE 10	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15
RESOLUTION	800 X 600	800 X 600	800 X 600	800 X 600	800 X 600	848 X 480	832 X 624	1024 X 768
CLOCK	36.000 MHZ	40.000 MHZ	49.500 MHZ	56.250 MHZ	57.299 MHZ	49.847 MHZ	57.285 MHZ	65.000 MHZ
— HORIZONTAL —								
H-FREQ	35.156 kHz	37.879 kHz	46.875 kHz	53.674 kHz	54.675 kHz	45.900 kHz	46.727 kHz	48.363 kHz
	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	28.444	26.400	21.333	18.631	18.290	21.787	20.110	20.677
H. BLK	6.222	6.400	5.172	4.409	4.328	4.815	5.586	4.923
H. FP	0.667	1.000	0.323	0.569	0.558	1.083	0.559	0.369
H. SYNC	0.889	3.200	1.616	1.138	1.117	1.204	1.117	2.092
H. BP	4.667	2.200	3.232	2.702	2.653	2.488	3.910	2.462
H. ACTIV	22.222	20.000	16.162	14.222	13.962	17.012	14.524	15.754
— VERTICAL —								
V. FREQ(HZ)	56.250 Hz	60.317 Hz	75.000 Hz	85.061 Hz	86.648 Hz	88.269 Hz	74.553 Hz	60.004 Hz
	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	625	628	625	631	631	520	667	806
V. BLK	25	28	25	31	31	40	43	38
V. FP	1	1	1	1	1	9	3	3
V. SYNC	2	4	3	3	3	6	3	6
V. BP	22	23	21	27	27	25	37	29
V. ACTIV	600	600	600	600	600	480	624	768
— SYNC —								
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO
EXT(H/V)/POLARITY	YES N/N	YES P/P	YES P/P	YES P/P	YES P/P	YES P/P	YES N/N	YES N/N
EXT(CS)/POLARITY	NO	NO	NO	NO	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

PRIMARY MODE MODE AT PRODUCTION	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20	MODE 21	MODE 22	MODE 23
RESOLUTION	1024 X 768	1024 X 768	1024 X 768	1152 X 864	1152 X 864	1152 X 870	1120 X 750	1152 X 900
CLOCK	75.000 MHZ	78.750 MHZ	94.500 MHZ	108.000 MHZ	121.500 MHZ	100.000 MHZ	78.430 MHZ	92.940 MHZ
— HORIZONTAL —								
H-FREQ	56.476 kHz	60.023 kHz	68.677 kHz	67.500 kHz	77.487 kHz	68.681 kHz	50.019 kHz	61.795 kHz
	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	17.707	16.660	14.561	14.815	12.905	14.560	19.992	16.182
H. BLK	4.053	3.657	3.725	4.148	3.424	3.040	5.712	3.787
H. FP	0.320	0.203	0.508	0.593	0.527	0.320	2.193	0.323
H. SYNC	1.813	1.219	1.016	1.185	1.053	1.280	1.428	1.377
H. BP	1.920	2.235	2.201	2.370	1.844	1.440	2.091	2.087
H. ACTIV	13.653	13.003	10.836	10.667	9.481	11.520	14.280	12.395
— VERTICAL —								
V. FREQ(HZ)	70.069 Hz	75.029 Hz	84.997 Hz	75.000 Hz	85.057 Hz	75.062 Hz	60.047 Hz	65.950 Hz
	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	806	800	808	900	911	915	833	937
V. BLK	38	32	40	36	47	45	83	37
V. FP	3	1	1	1	1	3	27	2
V. SYNC	6	3	3	3	3	3	10	4
V. BP	29	28	36	32	43	39	46	31
V. ACTIV	768	768	768	864	864	870	750	900
— SYNC —								
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO
EXT(H/V)/POLARITY	YES N/N	YES P/P	YES P/P	YES P/P	NO P/P	YES N/N	YES N/N	YES N/N
EXT(CS)/POLARITY	NO	NO	NO	NO	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

PRIMARY MODE MODE AT PRODUCTION	MODE 24	MODE 25	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30	MODE 31
RESOLUTION	1152 X 900	1170 X 584	1024 X 800	1280 X 960	1280 X 960	1280 X 1024	1280 X 1024	1280 X 1024
CLOCK	105.590 MHZ	46.200 MHZ	92.940 MHZ	108.000 MHZ	148.500 MHZ	108.000 MHZ	135.000 MHZ	157.500 MHZ
— HORIZONTAL —								
H-FREQ	71.732 kHz	31.216 kHz	70.838 kHz	60.000 kHz	85.938 kHz	63.981 kHz	79.976 kHz	91.146 kHz
	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	13.941	32.035	14.117	16.667	11.636	15.630	12.504	10.971
H. BLK	3.031	6.710	3.099	4.815	3.017	3.778	3.022	2.844
H. FP	0.152	0.801	0.258	0.889	0.431	0.444	0.119	0.406
H. SYNC	0.909	2.792	1.033	1.037	1.077	1.037	1.067	1.016
H. BP	1.970	3.117	1.808	2.889	1.508	2.296	1.837	1.422
H. ACTIV	10.910	25.325	11.018	11.852	8.620	11.852	9.481	8.127
— VERTICAL —								
V. FREQ(HZ)	76.068 Hz	50.026 Hz	84.031 Hz	60.000 Hz	85.002 Hz	60.020 Hz	75.025 Hz	85.024 Hz
	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	943	624	843	1000	1011	1066	1066	1072
V. BLK	43	40	43	40	51	42	42	48
V. FP	2	3	2	1	1	1	1	1
V. SYNC	8	3	8	3	3	3	3	3
V. BP	33	34	33	36	47	38	38	44
V. ACTIV	900	584	800	960	960	1024	1024	1024
— SYNC —								
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO
EXT(H/V)/POLARITY	YES N/N	YES N/N	YES N/N	YES P/P	YES P/P	YES P/P	NO P/P	YES P/P
EXT(CS)/POLARITY	NO	NO	NO	NO	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

PRIMARY MODE MODE AT PRODUCTION	MODE 32	MODE 33	MODE 34	MODE 35	MODE 36	MODE 37	MODE 38	MODE 39
RESOLUTION	1280 X 1024	1024 X 768	—	—	1280 X 1024	800X 600	1024 X 768	1280 X 1024
CLOCK	148.000 MHZ	80.000 MHZ	—	—	135.000 MHZ	50.000 MHZ	71.640 MHZ	100.000 MHZ
— HORIZONTAL —								
H-FREQ	81.319 kHz	60.241 kHz	—	—	81.130 kHz	48.077 kHz	53.946 kHz	60.680 kHz
	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	12.297	16.600	—	—	12.326	20.800	18.537	16.480
H. BLK	3.649	3.800	—	—	2.844	4.800	4.243	3.680
H. FP	0.270	0.400	—	—	0.237	1.120	0.223	0.240
H. SYNC	1.378	1.200	—	—	0.474	2.400	2.457	1.120
H. BP	2.000	2.200	—	—	2.133	1.280	1.563	2.320
H. ACTIV	8.649	12.800	—	—	9.481	16.000	14.294	12.800
— VERTICAL —								
V. FREQ(HZ)	77.006 Hz	74.927 Hz	—	—	76.107 Hz	72.188 Hz	66.110 Hz	57.030 Hz
	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	1056	804	—	—	1066	666	816	1064
V. BLK	32	36	—	—	42	66	48	40
V. FP	3	3	—	—	2	37	8	3
V. SYNC	3	3	—	—	8	6	4	3
V. BP	26	30	—	—	32	23	36	34
V. ACTIV	1024	768	—	—	1024	600	768	1024
— SYNC —								
INT(G)	YES	NO	—	—	NO	NO	NO	NO
EXT(H/V)/POLARITY	NO	YES N/N	—	—	YES N/N	YES N/N	YES N/N	YES N/N
EXT(CS)/POLARITY	NO	NO	—	—	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	—	—	NON INT	NON INT	NON INT	NON INT

99.4.9 VER.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

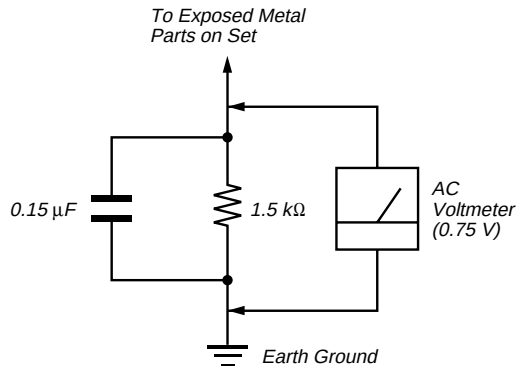


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVÉE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SONT CRITIQUES POUR LA SÉCURITÉ. NE LES REMPLACER QUE PAR UNE PIÈCE PORTANT LE NUMÉRO SPECIFIÉ. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

Precautions

Installation

- Prevent internal heat build-up by allowing adequate air circulation. Do not place the monitor on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the monitor near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Do not place the monitor near equipment which generates magnetism, such as a transformer or high voltage power lines.

Handling the LCD screen

- **Bright points of light (red, blue or green) may appear on the LCD screen. This is not a malfunction. The LCD screen is made with high-precision technology and more than 99.99 % of the picture element is intact. However, some of the picture element may not appear or some of the picture element may appear constantly.**
- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the monitor by a window.
- Do not push or scratch the LCD screen. Do not place a heavy object on the LCD screen. This may cause the screen to lose uniformity.
- If the monitor is used in a cold place, a residual image may appear on the screen. This is not a malfunction. When the monitor becomes warm, the screen returns to normal.
- If a still picture is displayed for a long time, a residual image may appear. The residual image will eventually disappear.
- The screen and the cabinet become warm during operation. This is not a malfunction.

About the fluorescent tube

A specially designed fluorescent tube is installed as the lighting apparatus for this monitor. If the LCD screen becomes dark, unstable or does not turn on, consult your Sony dealer.

Maintenance

- Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzine.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ballpoint pen or screwdriver. This type of contact may result in a scratched picture tube.
- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an antistatic solution or similar additive as this may scratch the screen's coating.

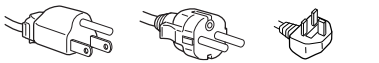
Transportation

- When you transport this monitor, grip the bottom of the screen firmly with both hands. If you drop the monitor, you may be injured or the monitor may be damaged.
- When you transport this monitor for repair or shipment, use the original carton and packing materials.

Warning on power connection

- Use an appropriate power cord for your local power supply.
  For the customers in the U.S.A.
  If you do not use the appropriate cord, this monitor will not conform to mandatory FCC standards.
  For the customers in the UK
  If you use the monitor in the UK, please use the supplied UK cable with the UK plug.

Examples of plug types



for 100 to 120 V AC **for 200 to 240 V AC** **for 240 V AC only**

The outlet should be installed near the equipment and be easily accessible.

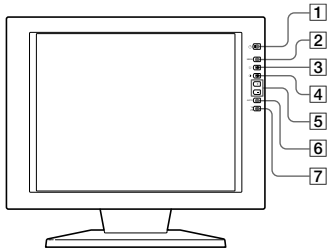
Disposal of the monitor

- **Do not dispose of the monitor with general waste.** Do not include the monitor with household waste.
- **The fluorescent tube includes mercury. Dispose of the monitor in accordance with the regulations of your local sanitation authority.**

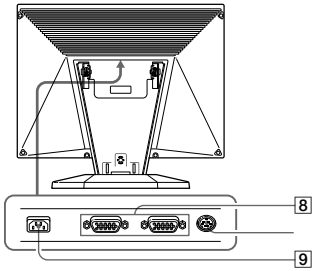
Identifying Parts and Controls

See the pages in parentheses for further details.

Front



Rear



1 ⏻ **(power) switch and indicator (pages 8, 17)**
Turns the monitor on or off.
The indicator lights up in green when the monitor is turned on, and either flashes in green and orange or lights up in orange when the monitor is in power saving mode.

2 **MENU (menu) button (pages 9 – 16, 19)**
Displays the MENU OSD (On-Screen Display).

3 ☼ **(brightness) (⇧) button (pages 9 – 16)**
Adjusts the picture brightness.

Functions as the ⇧ button when selecting menu items.

4 ◑ **(contrast) (⇩) button (pages 9 – 16)**
Adjusts the contrast.

Functions as the ⇩ button when selecting menu items.

5 **+/– (adjust) buttons (pages 11 – 16)**
Adjusts the selected menu item.

6 **AUTO button (page 10)**
When the signal from the computer is displayed on this monitor, press the AUTO button to automatically adjust the picture to the computer.
You also should press this button if the picture is not centered or if it is fuzzy.

7 **1, 2 input switch and indicator (page 8)**
Selects the input signal from 1 or 2. Each time you press the button, the input changes and the corresponding indicator lights up.

8 **1/2 input connectors (HD15) (pages 6, 8)**
Input analog RGB video signals (0.714 Vp-p, positive) and SYNC signals.

9 **DC IN connector (page 6)**
Provides DC power to the monitor from the AC adaptor.

* This connector is used by service personnel only. Do not connect anything to this outlet.

GB

Setup

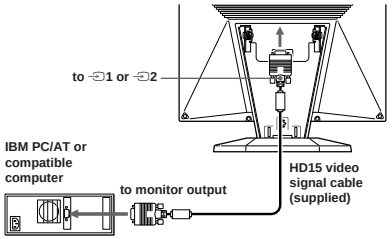
Before using this monitor, check that the following items are included in your carton:

- LCD monitor (1)
- Rear cover (1)
- Power cord (1)
- AC adapter (1)
- HD15 video signal cable (1)
- Macintosh adapter (1)
- Windows Monitor Information Disk/Utility Disk (1)
- Macintosh Utility Disk (1)
- Warranty card (1)
- These operating instructions (1)

Step 1: Connect the monitor to the computer

Turn off the monitor and computer before connecting.

Connecting to an IBM PC/AT or compatible computer



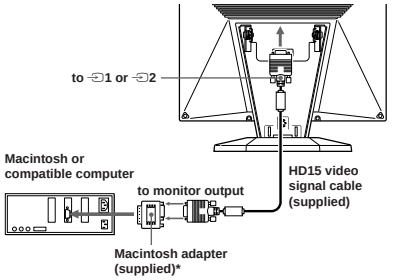
If your PC system is not compatible with Plug & Play (DDC2B and DDC2Bi)

This monitor uses the No. 9 pin in the video signal connector for Plug & Play (DDC2B and DDC2Bi) compatibility. See page 20 for the location of the No. 9 pin.

- If your computer accepts the No. 9 pin, use the supplied HD15 video signal cable.
- If your computer does not accept the No. 9 pin, please consult your dealer for advice on obtaining an HD15 adapter.

Connecting to a Macintosh

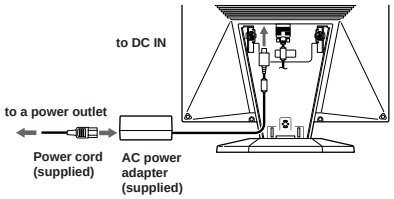
Use the supplied Macintosh adapter.



* Connect the supplied Macintosh adapter to the computer before connecting the cable. This adapter is compatible with Macintosh LC, Performa, Quadra, Power Macintosh and Power Macintosh G3 series computers (sold before January, 1999). If you are connecting to a Power Macintosh G3 series that sold after January 1999, you will need a different adapter (not supplied). Macintosh II series and some older versions of PowerBook models may need an adapter with micro switches (not supplied).

Step 2: Connect the power cord

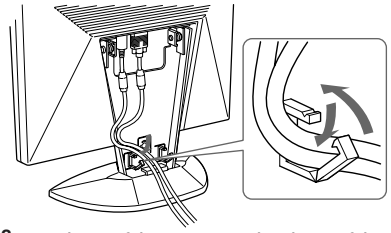
With the monitor and computer switched off, connect one end of the power cord to the AC power adapter, and the AC power adaptor to the monitor. Then connect the other end of the power cord to a power outlet.



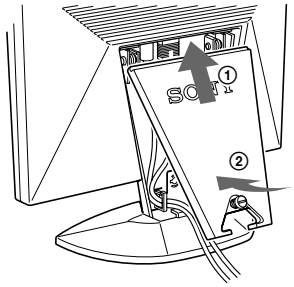
Step 3: Attaching the rear cover

After connecting the computer and power cord, attach the supplied rear cover.
Make sure that you keep the screen upright when attaching the rear cover.

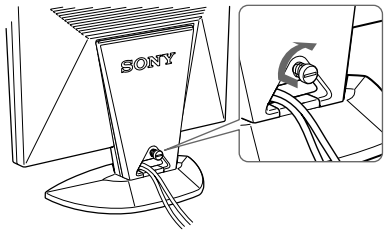
1 Hook the computer cable and power cord.

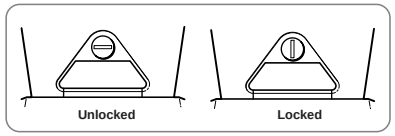


2 Press the top of the rear cover against the top of the part for attaching the cover, and then push the rear cover in.



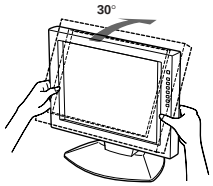
3 Turn the screw to fasten the rear cover.

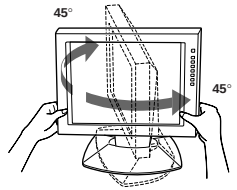




Use of the Tilt

The tilt feature will adjust the monitor within 30° upward, and 45° to the left or right. However, best viewing results can be obtained by tilting the screen upward by 5° or more. To turn the monitor, hold at the bottom with both hands as illustrated below.

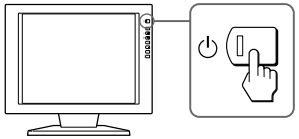




GB

Turning on the Monitor and Computer

1 Press the ⏻ switch.



2 Turn on the computer.

The installation of your monitor is complete.
If necessary, use the monitor's controls to adjust the picture.

If no picture appears on your screen

- Check that the monitor is correctly connected to the computer.
- If NO INPUT SIGNAL appears on the screen, try changing the input signal, and confirm that your computer's graphics board is completely seated in the correct bus slot.
- If you are replacing an old monitor with this model and OUT OF SCAN RANGE appears on the screen, reconnect the old monitor. Then adjust the computer's graphics board so that the horizontal frequency is between 30 – 92 kHz, the vertical frequency is between 40 – 85 Hz, and the resolution is 1280 x 1024 or lower.

For more information about the on-screen messages, see "Trouble symptoms and remedies" on page 18.

For customers using Windows 95/98

To maximize the potential of your monitor, install the new model information file from the supplied Windows Monitor Information Disk/Utility Disk onto your PC.
This monitor complies with the "VESA DDC" Plug & Play standard. If your PC/graphics board complies with DDC, select "Plug & Play Monitor (VESA DDC)" or this monitor's model name as the monitor type in the "Control Panel" of Windows 95/98. If your PC/graphics board has difficulty communicating with this monitor, load the Windows Monitor Information Disk/Utility Disk and select this monitor's model name as the monitor type.

For customers using Windows NT4.0

Monitor setup in Windows NT4.0 is different from Windows 95/98 and does not involve the selection of monitor type. Refer to the Windows NT4.0 instruction manual for further details on adjusting the resolution, refresh rate, and number of colors.

Adjusting the monitor's resolution and color number

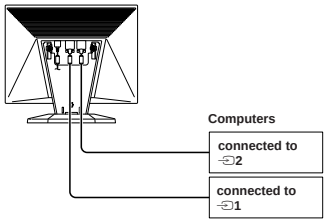
Adjust the monitor's resolution and color number by referring to your computer's instruction manual. The color number may vary according to your computer or graphics board. The color palette setting and the actual number of colors are as follows:

- High color (16 bit) → 65,536 colors.
- True Color (24 bit) → about 16.77 million colors

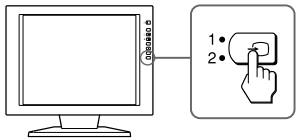
In true color mode (24 bit), speed may be slower.

Selecting the Input Signal

You can connect two computers to this monitor using the HD 15 connectors. To switch between the two computers, use the ⇦ button.



Press the ⇦ button.
The input signal and corresponding input indicator change each time you press this button.



Note

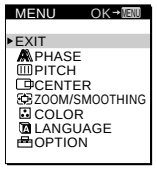
If you restart the computer you want to view, or that computer is in power saving mode, the monitor may automatically switch to the other connector's signal. If this happens, manually select the desired signal using the ⇦ button.

Before adjusting

Connect the monitor and the computer, and turn them on.
Wait for at least 30 minutes before making adjustments for the best result.

Introducing the On-Screen Display System

Most adjustments are made using the MENU OSD.
To change the on-screen display language, see "Selecting the On-Screen Display Language."



EXIT

Closes the MENU OSD.

PHASE

Displays the PHASE OSD. Adjust the phase when the characters or pictures appear fuzzy throughout the entire screen. Adjust the phase after adjusting the pitch.

PITCH

Displays the PITCH OSD. Adjust the pitch when the characters or pictures are not clear at some parts of the screen.

CENTER

Displays the CENTER OSD for adjusting the centering of the picture.

ZOOM/SMOOTHING

Displays the ZOOM/SMOOTHING OSD for adjusting the picture's sharpness according to the input signal's aspect ratio or resolution.

COLOR

Displays the COLOR OSD for adjusting the color temperature.

LANGUAGE

Displays the LANGUAGE OSD for selecting the on-screen display language.

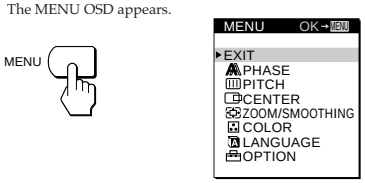
OPTION

Displays the OPTION OSD. You can adjust settings such as the backlight, OSD position, power saving delay time and control lock.

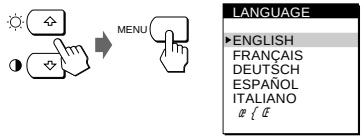
Selecting the On-Screen Display Language

You can select the OSD language from English, French, German, Spanish, Italian, and Japanese.

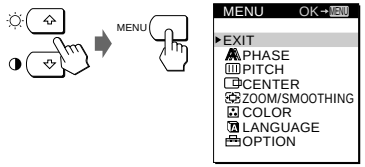
1 Press the MENU button.
The MENU OSD appears.



2 Press the ⇧/⇩ buttons to select LANGUAGE, and press the MENU button.
The LANGUAGE OSD appears.



3 Press the ⇧/⇩ buttons to select the desired language, and press the MENU button.
The MENU OSD of the selected language appears.



The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button again.

GB

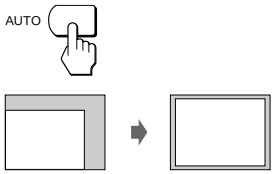
Automatically Adjusting the Picture

If the picture is flickering or fuzzy, press the AUTO button. The monitor is automatically adjusted to match the signal from the connected computer.
Further fine adjustments may be needed with some computers. In this case, manually adjust the monitor.

1 **Turn on the monitor.**

2 **Turn on the computer.**

3 **Press the AUTO button.**
The monitor adjusts the pitch to match the input signal so that the picture appears sharp, and fits the picture to the center of the screen.



Notes

- This function is intended for use with a computer running Windows or similar graphic user interface software that provides a full-screen picture. It may not work properly if the background color is dark or if the input picture does not fill the screen to the edges (such as an MS-DOS prompt).
- The screen may go blank for a few seconds while performing the auto-sizing function. This is not a malfunction.

If the picture is flickering or fuzzy even after you press the AUTO button

Adjust the Pitch and Phase by referring to "Eliminating Flickering or Blurring Manually."

If the picture is not in the center of the screen even after you press the AUTO button

Adjust using the CENTER OSD by referring to "Adjusting the Picture Position."

Eliminating Flickering or Blurring Manually

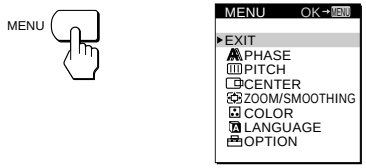
If a part of the screen is flickering or blurring, press the AUTO button. If this operation does not work, adjust the Pitch and Phase as follows.
Once the pitch and phase are adjusted, they will be stored in memory for the current input signal.

1 **Set the resolution to 1280 × 1024 on the computer.**
If the resolution of the graphics board is lower than 1280 × 1024, set ZOOM to REAL (page 12).

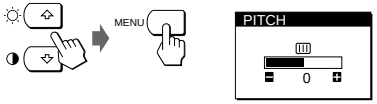
2 **Load the Utility Disk.**
Use the appropriate disk for your computer.
For Windows 95/98
Windows Monitor Information Disk/Utility Disk
For Macintosh
Macintosh Utility Disk

3 **Start the Utility Disk and display the test pattern.**
For Windows 95/98
Click [Utility Disk] → [Windows] → [Utility.exe].
For Macintosh
Click [Utility Disk] → [SONY-Utility].

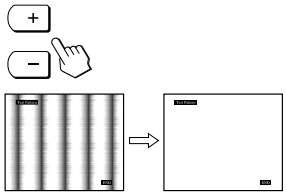
4 **Press the MENU button.**
The MENU OSD appears.



5 **Press the ⇧/⇩ buttons to select PITCH, and press the MENU button again.**
The PITCH OSD appears.

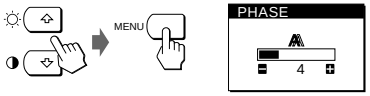


6 **Press the +/– buttons until the screen color becomes uniform.**
Adjust so that the vertical stripes disappear.

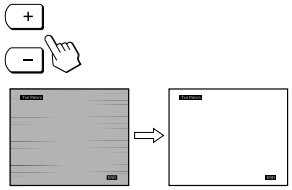


7 **Press the MENU button.**
The MENU OSD appears.
If horizontal stripes are observed over the entire screen, adjust the Phase in the next step.

8 **Press the ⇧/⇩ buttons to select PHASE, and press the MENU button again.**
The PHASE OSD appears.



9 **Press the +/– buttons until the screen color becomes uniform.**
Adjust until the horizontal stripes are at a minimum.



10 **When you have finished, click END on the screen to turn off the test pattern.**

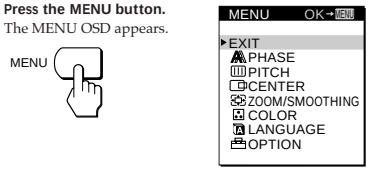
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button twice.

Adjusting the Picture Position

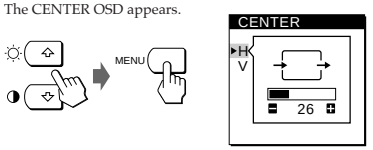
If the picture is not in the center of the screen, press the AUTO button. If this operation does not work, adjust the centering as follows.
Once the centering is adjusted, it will be stored in memory for the current input signal.

1 **Start the Utility Disk and display the test pattern.**
Do steps 2 and 3 of "Eliminating Flickering or Blurring Manually."

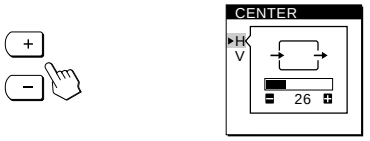
2 **Press the MENU button.**
The MENU OSD appears.



3 **Press the ⇧/⇩ buttons to select CENTER, and press the MENU button again.**
The CENTER OSD appears.



4 **Move the picture up, down, left, or right until the frame at the perimeter of the test pattern disappears.**
For horizontal adjustment, select H using the ⇧/⇩ buttons and adjust the position using the +/– buttons.
+ . . . to move the picture right
– . . . to move the picture left

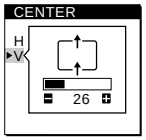


Continued

For vertical adjustment, select V using the ⇧/⇩ buttons and adjust the position using the +/– buttons.

+ . . . to move the picture up

– . . . to move the picture down



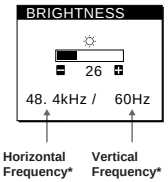
5 When you have finished, click END on the screen to turn off the test pattern.

The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button twice.

Adjusting the Picture Brightness

Once the brightness is adjusted, it will be stored in memory for all input signals received.

1 Press the ☼ (brightness) ⇧ button.
The BRIGHTNESS OSD appears.



2 Press the +/– buttons.

+ . . . for more brightness
– . . . for less brightness

The OSD automatically disappears after about 3 seconds.

* The horizontal and vertical frequencies for the received input signal appear in the BRIGHTNESS OSD.

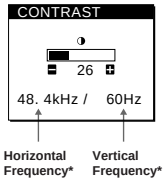
If the screen is too bright when using the monitor in a dark room

Decrease the BACKLIGHT (page 15).

Adjusting the Contrast

Once the contrast is adjusted, it will be stored in memory for all input signals received.

1 Press the ◑ (contrast) ⇩ button.
The CONTRAST OSD appears.



2 Press the +/– buttons.

+ . . . for more contrast
– . . . for less contrast

The OSD automatically disappears after about 3 seconds.

* The horizontal and vertical frequencies for the received input signal appear in the CONTRAST OSD.

Changing the Picture Size According to the Signal

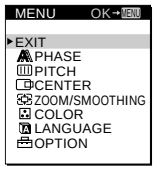
The monitor is set at the factory to display the picture on the screen in full, irrespective of the picture's mode or resolution. You can also view the picture at its actual aspect ratio or resolution. Note that 1280 × 1024 resolution signals fill the entire screen and ZOOM is not possible.
Once the zoom is set, it will be stored in memory for the current input signal.

FULL 1
The input signal is displayed on the screen in full, irrespective of the picture's mode or resolution.

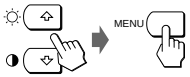
FULL 2
The input signal is displayed on the screen at its actual aspect ratio. Therefore, black bands may appear at the top and bottom of the picture depending on the signal.

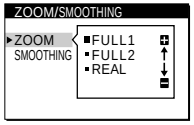
REAL
The input signal is displayed on the screen at its actual resolution. (Sub-SXGA signals are displayed at the center of the screen surrounded by black frame.)

1 Press the MENU button.
The MENU OSD appears.

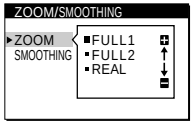


2 Press the ⇧/⇩ buttons to select ZOOM/SMOOTHING, and press the MENU button again.
The ZOOM/SMOOTHING OSD appears.





3 Press the ⇧/⇩ buttons to select ZOOM.



4 Press the +/– buttons to select the desired mode.

The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button twice.

To display the picture on the screen in full

Select "FULL 1" in step 4.

If the picture displayed at FULL 1 or FULL2 mode is not smooth

Use the picture smoothing function. The smoothing effect becomes stronger in the order of TEXT → STANDARD → GRAPHICS. Note that 1280 × 1024 resolution signals are shown only in REAL mode and SMOOTHING is not possible.
Once the smoothing is set, it will be stored in memory for the current input signal.

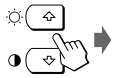
STANDARD
Standard smoothing effect (factory preset smoothing effect).

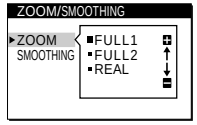
TEXT
To make the characters appear clear. (This mode is suited for text-based applications.)

GRAPHICS
To make the pictures appear clean. (This mode is suited for CD-ROM software such as photo images or illustrations.)

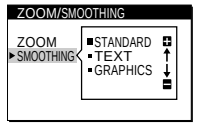
1 Press the MENU button.
The MENU OSD appears.

2 Press the ⇧/⇩ buttons to select ZOOM/SMOOTHING, and press the MENU button again.
The ZOOM/SMOOTHING OSD appears.





3 Press the ⇧/⇩ buttons to select SMOOTHING.



4 Press the +/– buttons to select the desired mode.

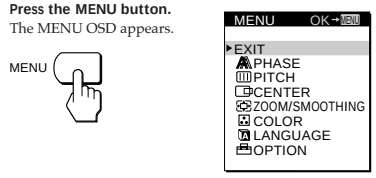
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button twice.

GB

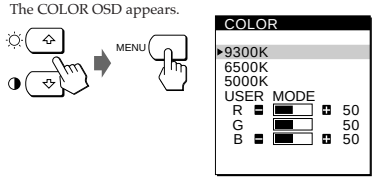
Changing or Adjusting the Color Temperature

The color temperature is set to 9300K at the factory.
You can change the color temperature to 6500K or 5000K. Use this function to adjust the color temperature so that it matches the actual colors of a printed picture.
Once the color temperature is adjusted, it will be stored in memory for all input signals received.

1 Press the MENU button.
The MENU OSD appears.

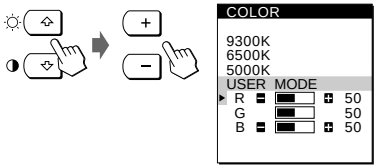


2 Press the ⇧/⇩ buttons to select COLOR, and press the MENU button again.
The COLOR OSD appears.



3 Press the ⇧/⇩ buttons to select the color temperature.
If you need to make further adjustments to the selected color temperature, go to step 4.
If you don't, press the MENU button. The MENU OSD appears.

4 Press the ⇧/⇩ buttons to select R (red) or B (blue), and press the +/– buttons to get the desired color.
The color changes as the R or B components increase or decrease with respect to G (green).

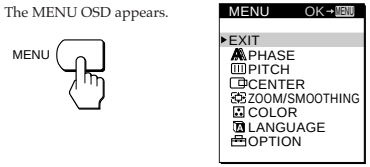


The OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

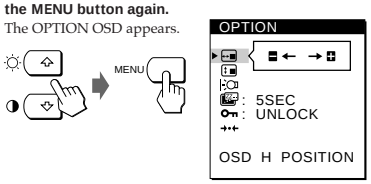
Changing the On-Screen Display Position

You can change the OSD position (for example, when you want to adjust the picture behind the OSD).

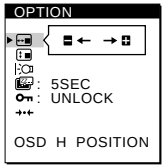
1 Press the MENU button.
The MENU OSD appears.



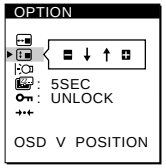
2 Press the ⇧/⇩ buttons to select OPTION, and press the MENU button again.
The OPTION OSD appears.



3 Press the ⇧/⇩ buttons to select (OSD H POSITION) or (OSD V POSITION).
To adjust the horizontal position



To adjust the vertical position



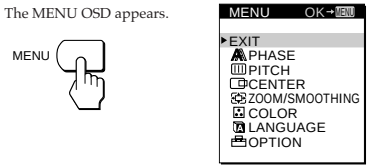
4 Press the +/– buttons to move the OSD to the desired position.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

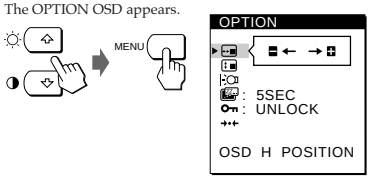
Adjusting the Backlight

If the screen is too bright when you are using the monitor in a dark room, adjust the backlight.

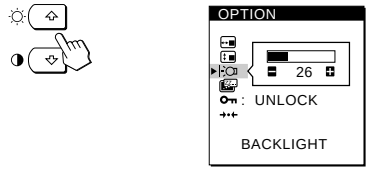
1 Press the MENU button.
The MENU OSD appears.



2 Press the ⇧/⇩ buttons to select OPTION, and press the MENU button again.
The OPTION OSD appears.



3 Press the ⇧/⇩ buttons to select (BACKLIGHT).



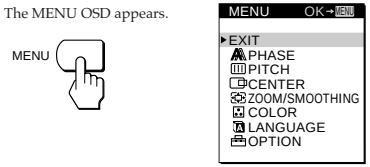
4 Press the +/– buttons to adjust the light level.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

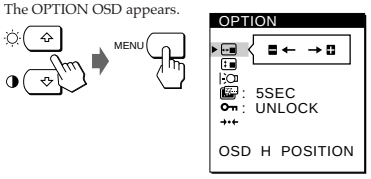
Setting the Power Saving Delay Time

You can set the delay time before the monitor enters the power saving mode. See page 17 for more information on this monitor's power saving capabilities.

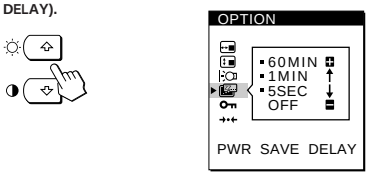
1 Press the MENU button.
The MENU OSD appears.



2 Press the ⇧/⇩ buttons to select OPTION, and press the MENU button again.
The OPTION OSD appears.



3 Press the ⇧/⇩ buttons to select (PWR SAVE DELAY).



4 Press the +/– buttons to select the desired time.

When PWR SAVE DELAY is set to OFF, the monitor does not go into power saving mode.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

GB

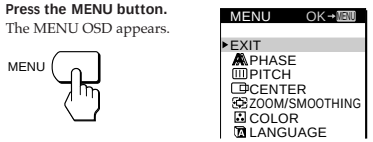
Locking the Controls

The control lock function disables all of the controls except the ⏻ (power) switch, MENU and some other buttons on the front panel.

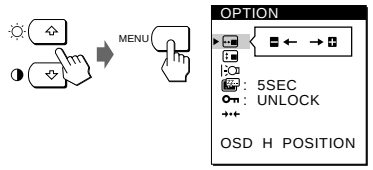
Once you select "LOCK," you can select only the following items in the MENU OSD:
- EXIT
- CONTROL LOCK and FACTORY PRESET in the OPTION OSD

If you press any locked button, the 🔑 mark appears on the screen.

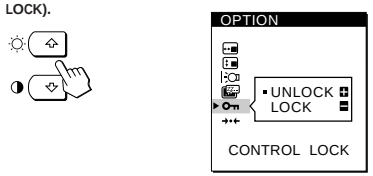
1 Press the MENU button.
The MENU OSD appears.



2 Press the ⇧/⇩ buttons to select OPTION, and press the MENU button again.
The OPTION OSD appears.



3 Press the ⇧/⇩ buttons to select 🔑 (CONTROL LOCK).



4 Press the – button to select LOCK.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

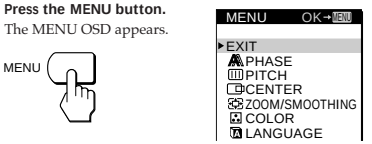
To cancel the control lock

Press the + button in step 4 to select UNLOCK.

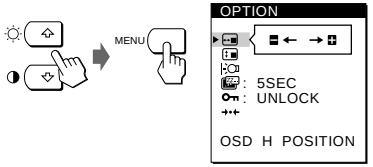
Resetting the Adjustments

You can reset all of the adjustments and settings to the factory settings.
The color temperature is reset to 9300K, the zoom setting is reset to FULL 1 mode, and the power saving delay time is reset to 5 seconds. The control lock is cancelled. All other adjustments return to the default settings. The on-screen language, however, does not change.

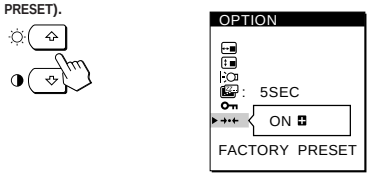
1 Press the MENU button.
The MENU OSD appears.



2 Press the ⇧/⇩ buttons to select OPTION, and press the MENU button again.
The OPTION OSD appears.



3 Press the ⇧/⇩ buttons to select ⇢ (FACTORY PRESET).



4 Press the + button.

The OPTION OSD automatically disappears after about 30 seconds.
To close the OSD, press the MENU button twice.

Preset and User Modes

This monitor has factory preset modes for the most popular industry standards for true "plug and play" compatibility. (See Appendix for a list of the factory preset modes.)
When a new input signal is entered, the monitor selects the appropriate factory preset mode and momentarily adjusts the phase calibration to provide a high quality picture to the center of the screen. The calibration is stored in memory and is immediately recalled whenever the same input signal is received.
For input signals that do not match one of the factory preset modes, the digital Multiscan technology of this monitor performs all of the adjustments necessary to ensure that a clear picture appears on the screen for any timing in the monitor's frequency range. However, it may be necessary to fine tune the vertical/horizontal centering. Simply press the AUTO button or adjust the monitor according to the adjustment instructions. The adjustments are stored automatically as a user mode and recalled whenever the corresponding input signal is received.

Power Saving Function

This monitor meets the power-saving guidelines set by VESA and ENERGY STAR, as well as the more stringent NUTEK .
If the monitor is connected to a computer or video graphics board that is VESA DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown below.
You can set the delay time before the monitor enters the power saving mode using the OSD. Set the time according to "Setting the Power Saving Delay Time" on page 15.

	Power consumption mode	Power consumption*	⏻ Indicator
1	Normal operation	≤ 65 W (≤ 75 W)	Green
2	Standby (1st mode)	≤ 1 W (≤ 5 W)	Green and orange alternate
3	Suspend (2nd mode) (sleep)**	≤ 1 W (≤ 5 W)	Green and orange alternate
4	Active-off (3rd mode)*** (deep sleep)**	≤ 1 W (≤ 5 W)	Orange
5	Power-off	≤ 1 W (≤ 5 W)	Off

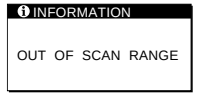
* Power consumption of the monitor only. The figures in parentheses are power consumption of the monitor including the AC adapter.
** "Sleep" and "deep sleep" are power saving modes defined by the Environmental Protection Agency.
*** When your computer enters the power saving mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After the time set in "Changing the Power Saving Delay Time" (page 15) has elapsed, the monitor enters the power saving mode.

Troubleshooting

This section may help you isolate the cause of a problem and as a result, eliminate the need to contact technical support.

On-screen messages

If there is something wrong with the input signal, one of the following messages appears on the screen. To solve the problem, see "Trouble symptoms and remedies" on page 18.



"OUT OF SCAN RANGE" indicates that the input signal is not supported by the monitor's specifications.

"NO INPUT SIGNAL" indicates that no signal is input to the monitor.

GB

Trouble symptoms and remedies

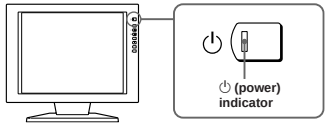
If the problem is caused by the connected computer or other equipment, please refer to the connected equipment's instruction manual.
Use the self-diagnosis function (page 19) if the following recommendations do no resolve the problem.

Symptom	Check these items
No picture	
If the ⏻ indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the "NO INPUT SIGNAL" message appears on the screen, or if the ⏻ indicator is either orange or alternating between green and orange	• Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets. • Check that the input select setting is correct. • Check that the HD15 video input connector's pins are not bent or pushed in. ■ **Problems caused by the connected computer or other equipment** • The computer is in power saving mode. Try pressing any key on the computer keyboard. • Check that the computer's power is "on." • Check that your graphics board is completely seated in the proper bus slot.
If the "OUT OF SCAN RANGE" message appears on the screen	■ **Problems caused by the connected computer or other equipment** • Check that the video frequency range is within that specified for the monitor. If you replaced an old monitor with this monitor, reconnect the old monitor and adjust the frequency range to the following. Horizontal: 30 – 92 kHz, Vertical: 48 – 85 Hz
If no message is displayed and the ⏻ indicator is green or flashing orange	• Use the self-diagnosis function (page 19).
If using Windows 95/98	• If you replaced an old monitor with this monitor, reconnect the old monitor and do the following. Install the Windows Monitor Information Disk/Utility Disk and select "CPD-L181/L181A" from among the Sony monitors in the Windows 95/98 monitor selection screen.
If using a Macintosh system	• Check that the Macintosh adapter and the video signal cable are properly connected (page 6).
Picture flickers, bounces, oscillates, or is scrambled.	• Press the AUTO button. If this does not work, adjust the pitch and phase (page 10). • Isolate and eliminate any potential sources of electric or magnetic fields such as other monitors, laser printers, electric fans, fluorescent lighting, or televisions. • Move the monitor away from power lines or place a magnetic shield near the monitor. • Try plugging the monitor into a different AC outlet, preferably on a different circuit. • Try turning the monitor 90° to the left or right. ■ **Problems caused by the connected computer or other equipment** • Check your graphics board manual for the proper monitor setting. • Confirm that the graphics mode (VESA, Macintosh 21" Color, etc.) and the frequency of the input signal are supported by this monitor (Appendix). Even if the frequency is within the proper range, some graphics boards may have a sync pulse that is too narrow for the monitor to sync correctly. • Adjust the computer's refresh rate (vertical frequency) to obtain the best possible picture.
Picture is fuzzy.	• Press the AUTO button. If this does not work, adjust the pitch and phase (page 10). • Adjust the contrast and brightness (page 12).
Picture is dark.	• Adjust the backlight (page 15) • Adjust the brightness (page 12). • It takes several seconds for the monitor to warm up after the power is turned on. The picture will appear momentarily.

Symptom	Check these items
Picture appears to be ghosting.	• Eliminate the use of video cable extensions and/or video switch boxes. • Check that all plugs are firmly seated in their sockets.
Picture is not centered or sized properly.	• Press the AUTO button (page 10). • Adjust the size (page 12) or centering (page 11). Note that some video modes do not fill the screen to the edges.
Wavy or elliptical (moire) pattern is visible.	• Adjust the pitch and phase (page 10).
Color is not uniform.	• Press the AUTO button. If this does not work, adjust the pitch and phase (page 10).
White does not look white.	• Adjust the color temperature (page 14).
Monitor buttons do not operate.	• If the control lock is set to LOCK, set it to UNLOCK (page 16).

Self-diagnosis function

This monitor is equipped with a self-diagnosis function. If there is a problem with your monitor or computer(s), the screen will go blank and the ⏻ (power) indicator will either light up green or flash orange. If the ⏻ (power) indicator is lit in orange, the computer is in power saving mode. Try pressing any key on the keyboard.



If the ⏻ (power) indicator is green

1 Disconnect the video signal cable(s).

2 Before the monitor goes to power saving mode, press the + button and keep it pressed for 2 seconds.

If all four color bars appear (white, red, green, blue), the monitor is working properly. Reconnect the video signal cable(s) and check the condition of your computer(s).

If the color bars do not appear, there is a potential monitor failure. Inform your authorized Sony dealer of the monitor's condition.

If the ⏻ (power) indicator is flashing orange

Press the ⏻ (power) button to turn the monitor off and on.
If the ⏻ (power) indicator lights up green, the monitor is working properly.

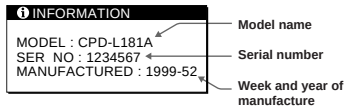
If the ⏻ (power) indicator is still flashing, there is a potential monitor failure. Count the number of seconds between orange flashes of the ⏻ (power) indicator and inform your authorized Sony dealer of the monitor's condition. Be sure to note the model name and serial number of your monitor. Also note the make and model of your computer and graphics board.

Displaying the INFORMATION OSD

You can confirm the name, the serial number and the year of manufacture of this monitor.

Press and hold the MENU button for 5 seconds.
The INFORMATION OSD appears.

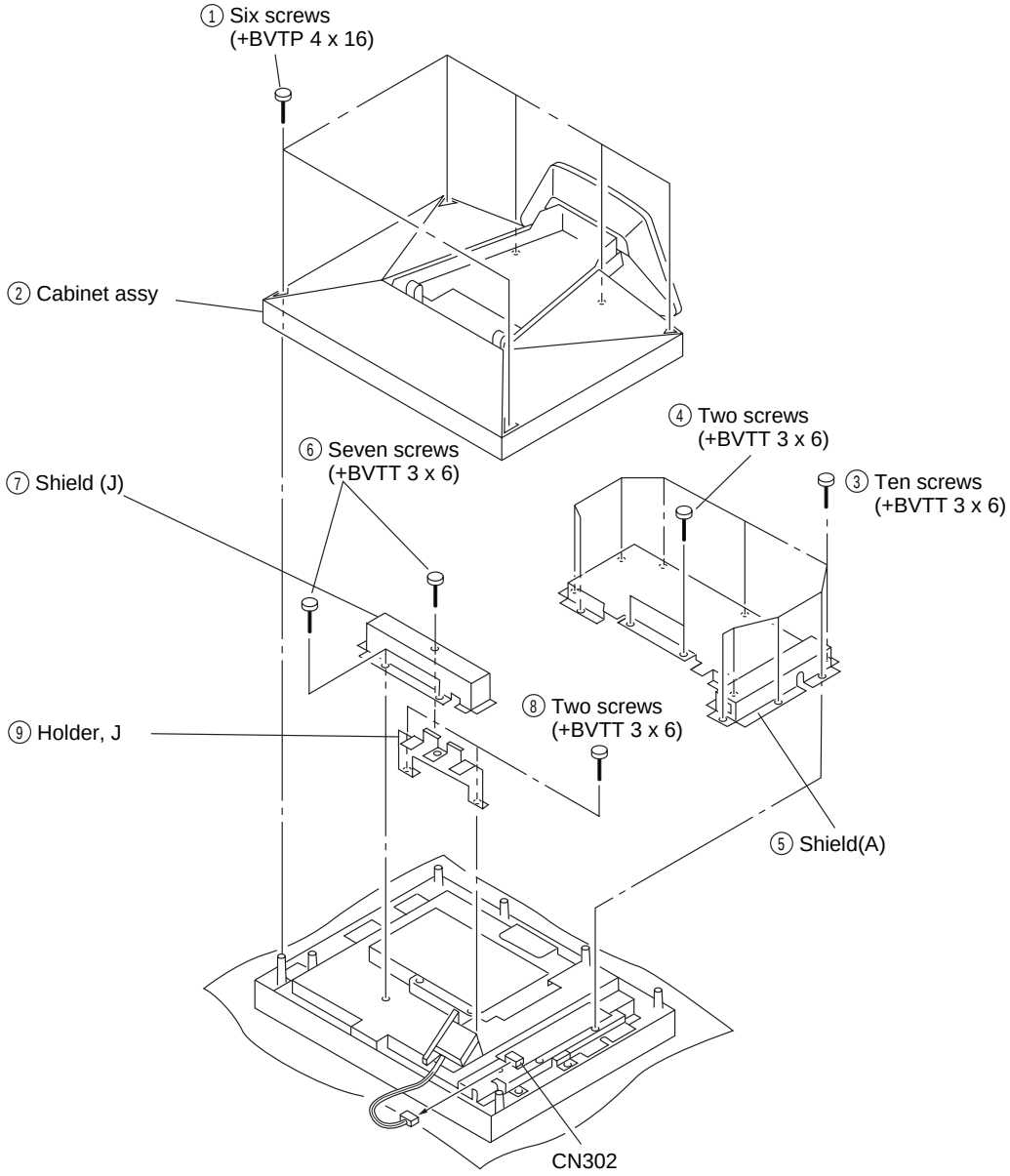
Example



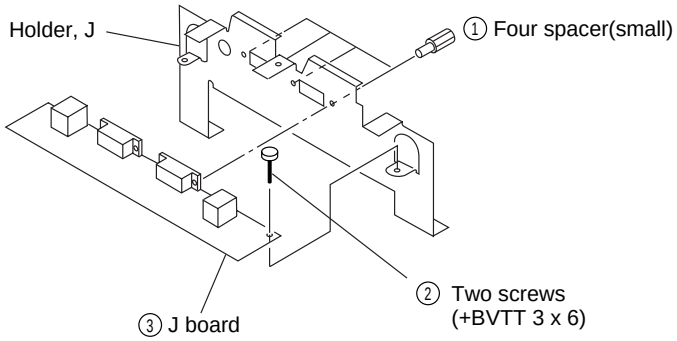
GB

SECTION 2
DISASSEMBLY

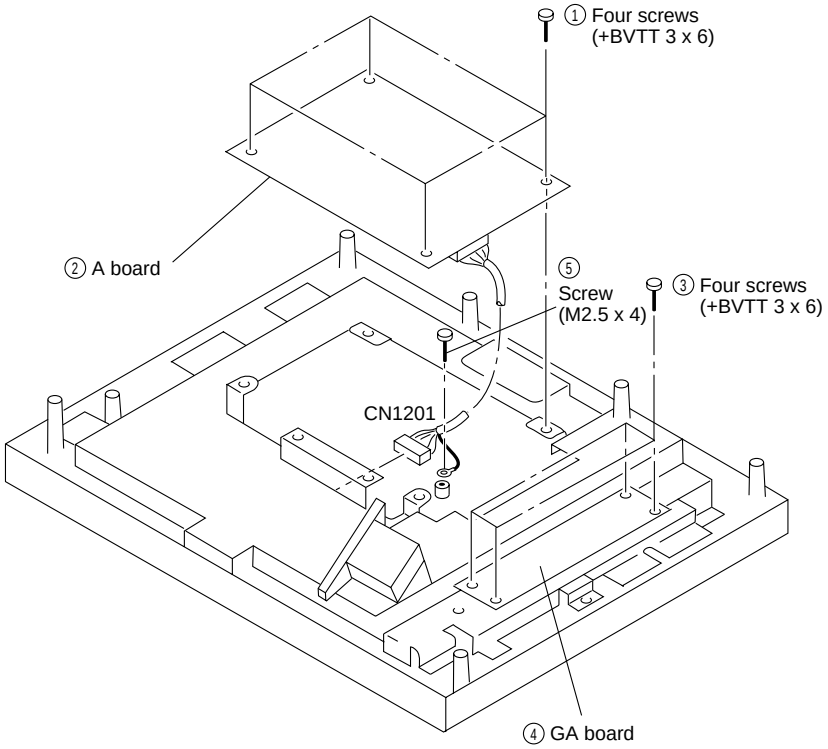
2-1. CABINET ASSY, SHIELD AND HOLDER J REMOVAL



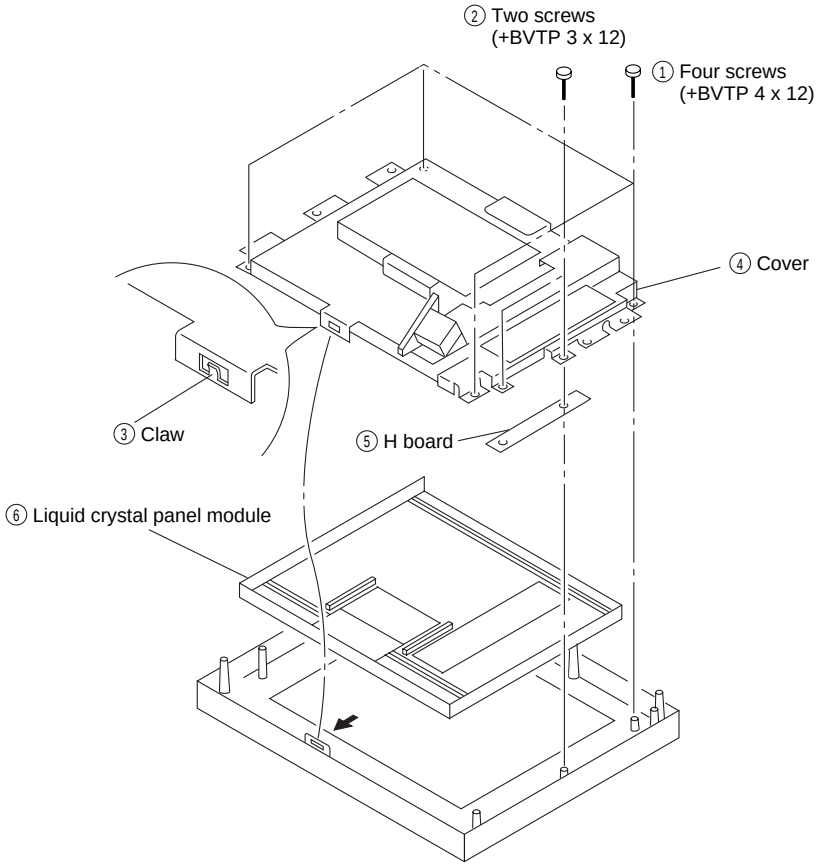
2-2. J BOARD REMOVAL



2-3. A BOARD AND GA BOARD REMOVAL

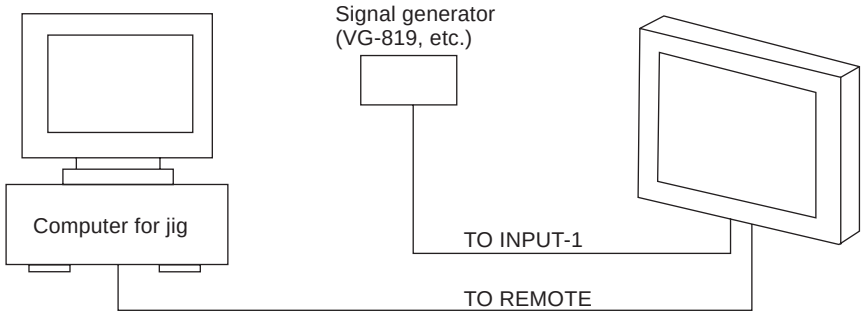


2-4. LIQUID CRYSTAL PANEL MODULE AND H BOARD REMOVAL



SECTION 3
ADJUSTMENTS

Connect the personal computer, monitor, and signal generator as shown below, and control the monitor.



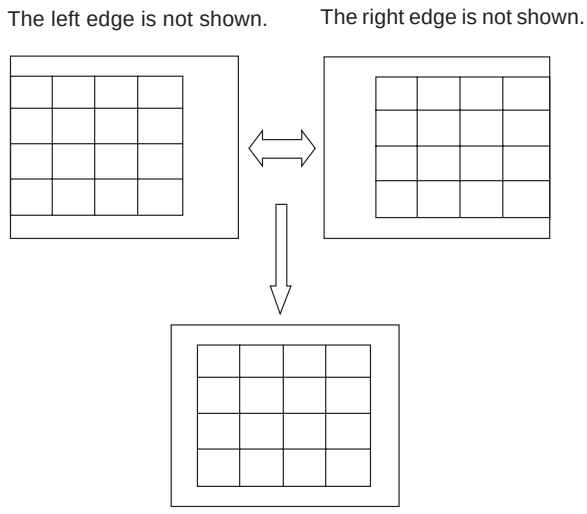
* Maintain the Aging mode for 30 to 60 minutes.

- **Adjustment of screen position**

1. Adjustment with expansion signal (below XGA)
(1) Input a cross hatch signal of VGA 640 × 480, fv: 60 Hz, and fh: 31.5 kHz.
(2) Set ZOOM to Full-2.
(3) Set PHASE to 20.
(4) Adjust IN_OFFSET_H to bring the screen to an appropriate position.
(5) Write the adjusted IN_OFFSET_H value into LOW_MEAS. (Input "IN_OFFSET_H" of UMT to "LOW_MEAS" of SC TABLE, and conduct service save (Select S with ALT + M).
(6) Input a cross hatch signal of XGA 1024 × 768, fv: 85 Hz, and fh: 68.7 kHz.
(7) Set ZOOM to Full-2.
(8) Set PHASE to 20.
(9) Adjust IN_OFFSET_H to bring the screen to an appropriate position.
(10) Write the adjusted IN_OFFSET_H value into HIGH_MEAS. (Input "IN_OFFSET_H" of UMT to "HI_MEAS" of SC TABLE, and conduct service save (Select S with ALT + M).

2. Adjustment with same size signal (SXGA)
(1) Input a cross hatch signal of SXGA 1280 × 1024, fv: 60 Hz, and fh: 63.98 kHz.
(2) Set ZOOM to Full-2.
(3) Set PHASE to 20.
(4) Adjust IN_OFFSET_H to bring the screen to an appropriate position.
(5) Write the adjusted IN_OFFSET_H value into SXGA1_MEAS. (Input "IN_OFFSET_H" of UMT to "SXGA1_MEAS" of SC TABLE, and conduct service save (Select S with ALT + M).
(6) Input a cross hatch signal of SXGA 1280 × 1024, fv: 85 Hz, and fh: 91.15 kHz.
(7) Set ZOOM to Full-2.
(8) Set PHASE to 20.
(9) Adjust IN_OFFSET_H to bring the screen to an appropriate position.
(10) Write the adjusted IN_OFFSET_H value into SXGA2_MEAS. (Input "IN_OFFSET_H" of UMT to "SXGA2_MEAS" of SC TABLE, and conduct service save (Select S with ALT + M).
(11) Get out of the adjustment mode.

Note: "Appropriate" means that vertical lines at both edges are uniform. If impossible, select the adjustment value with which the left vertical line becomes thicker.



- **Adjustment of factory preset mode**

Repeat the following operations as many times as the number of preset frequency sets.

(1) Input the signal that is to be confirmed.
(2) Set ZOOM to Full-1.
(3) Check that H_CENTER is appropriate.
(4) Check that V_CENTER is appropriate.
(5) Check that PITCH is appropriate.
(6) Check that PHASE is appropriate.
(7) If not, make adjustment and save the adjusted data.

- **Adjustment of white balance**

When no measuring instrument is used, compare the color with the reference set so that the colors will be the same.

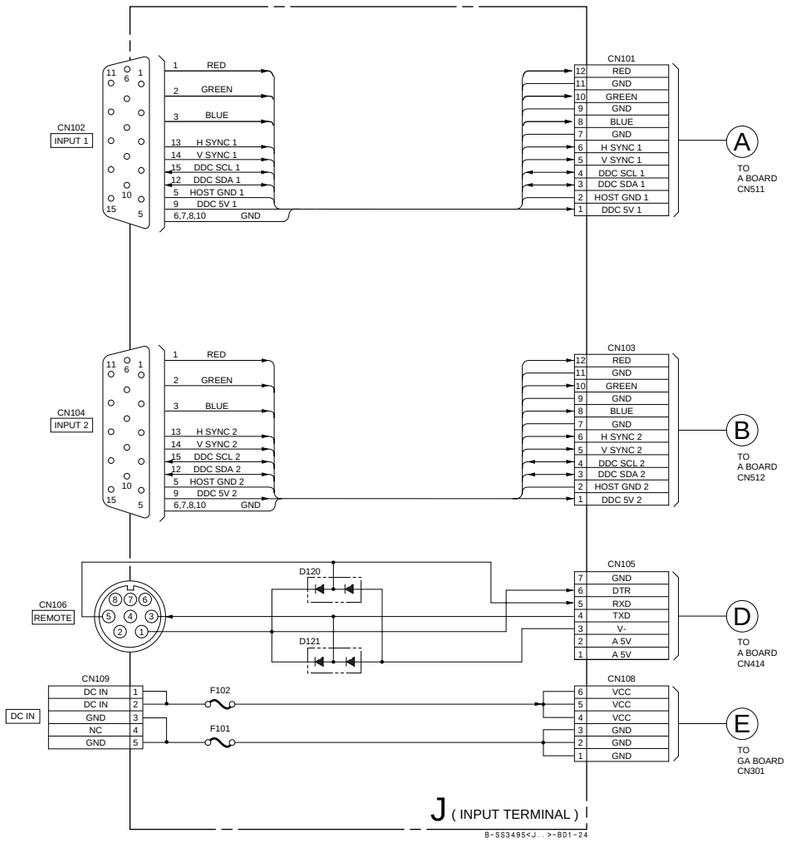
1. Adjustment of 9300°K
(1) Receive MODE29 (1280 × 1024 60Hz) 30IRE.
Set COLOR to 9300°K. (COLOR_INDEX=1)
(2) Begin with adjustment value, R_DRV_MAX, "G/B_DRV_MAX" -20.
(Adjusted value by set-up adjustment)
(3) Make adjustment with R/G_USR_DRV to set the chromaticity within the specification.
y adjustment ..... Make adjustment with G_USR_DRV.
G_USR_DRV DOWN Value y decrease.
G_USR_DRV UP Value y increase.
x adjustment ..... Make adjustment with R_USR_DRV.
R_USR_DRV UP Value y increases.
R_USR_DRV DOWN Value y decreases.
(4) Make the signal 30IRE all white to check that it is within the specification.
(5) Input a gray scale to check the picture quality.
(6) Conduct color save (Select C with ALT + M).
Spec: 9300°K 30IRE (x, y) = (0.285, 0.294)
Within 3JND
Check the following specification for dispersion control without adjustment.
9300°K 30IRE (x, y) = (0.285, 0.294)
Within 5JND
Note: Make adjustment up to ±0.0002.

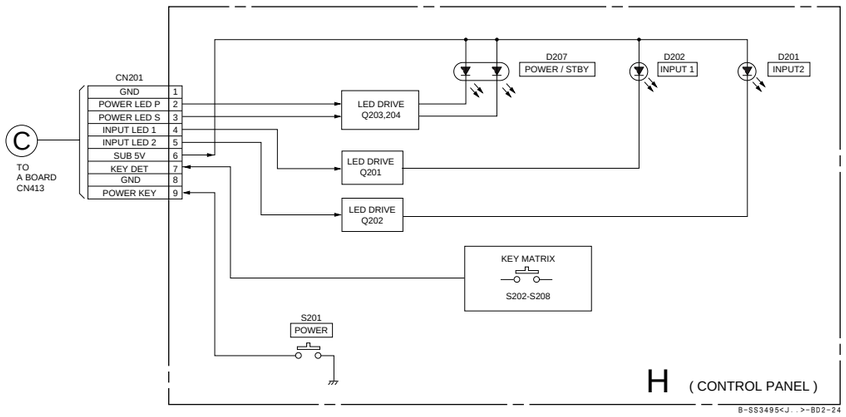
2. Adjustment of 6500°K
(1) Receive MODE29 (1280 × 1024 60Hz) 50IRE.
Set COLOR to 6500°K. (COLOR_INDEX=2)
(2) Begin with adjustment value, R_DRV_MAX, "G/B_DRV_MAX" -10.
(3) Make adjustment with R/B_USR_DRV to set the chromaticity within the specification.
y adjustment ..... Make adjustment with B_USR_DRV.
(The value x also changes.)
B_USR_DRV UP Values x and y decrease.
B_USR_DRV DOWN Values x and y increase.
x adjustment ..... Make adjustment with R_USR_DRV.
R_USR_DRV UP Value y increases.
R_USR_DRV DOWN Value y decreases.
(4) Make the signal 30IRE all white to check that it is within the specification.
(5) Input a gray scale to check the picture quality.
(6) Conduct color save (Select C with ALT + M) and get out of the adjustment mode.
Spec: 6500°K 50IRE (x, y) = (0.314, 0.324)
Within 3JND
Check the following specification for dispersion control without adjustment.
6500°K 30IRE (x, y) = (0.314, 0.324)
Within 4JND
Note: Make adjustment up to ±0.0002.

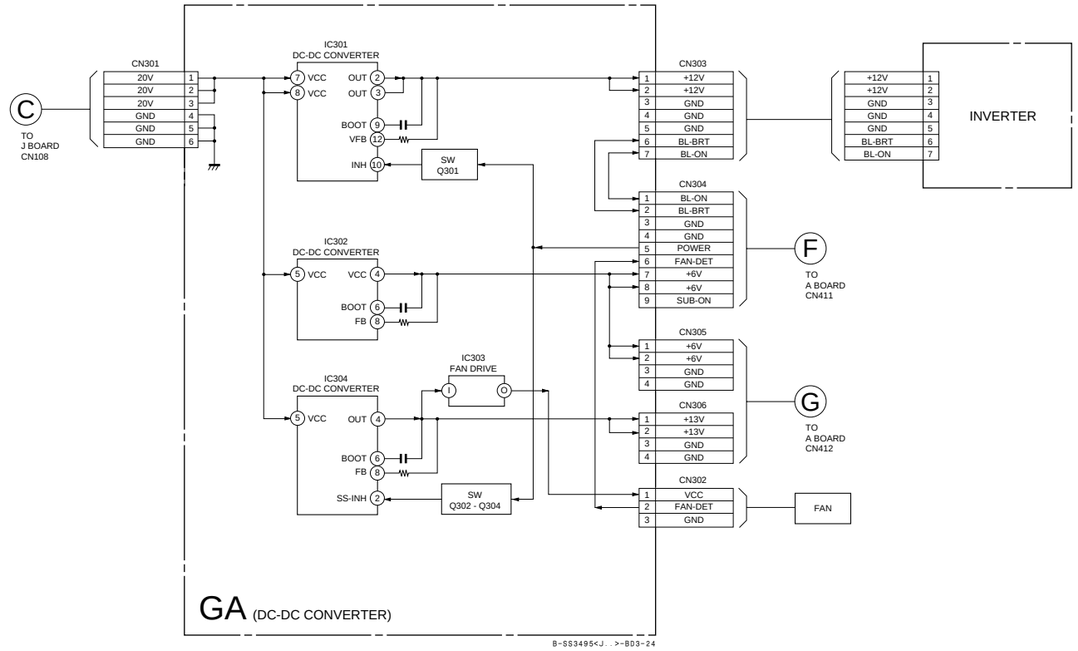
3. Adjustment of 5000°K
(1) Receive MODE29 (1280 × 1024 60Hz) 50IRE.
Set COLOR to 5000°K. (COLOR_INDEX=3)
(2) Begin with adjustment value, R/G/B_DRV_MAX.
(3) Make adjustment with R/B_USR_DRV to set the chromaticity within the specification when 50IRE is input. (The H/L input level is 50IRE only for 5000°K.)
y adjustment ..... Make adjustment with B_USR_DRV.
(The value x also changes.)
B_USR_DRV UP Values x and y decrease.
B_USR_DRV DOWN Values x and y increase.
x adjustment ..... Make adjustment with R_USR_DRV.
R_USR_DRV UP Value y increases.
R_USR_DRV DOWN Value y decreases.
(4) Make the signal 30IRE all white to check that it is within the specification.
(5) Input a gray scale to check the picture quality.
(6) Conduct color save (Select C with ALT + M)and get out of the adjustment mode.
Spec: 5000°K 50IRE (x, y) = (0.345, 0.352)
Within 3JND
Check the following specification for dispersion control without adjustment.
5000°K 30IRE (x, y) = (0.345, 0.352)
Within 4JND
Note: Make adjustment up to ±0.002. Check to see if the specification "within 5000°K ± 3JND" is met when adjustment up to ±0.0002 is impossible although B_USR_DRV can be lowered to 0 because of the nature of PRE-AMP, for which white balance adjustment is made. If the specification is met, there is no problem.

SECTION 4
DIAGRAMS

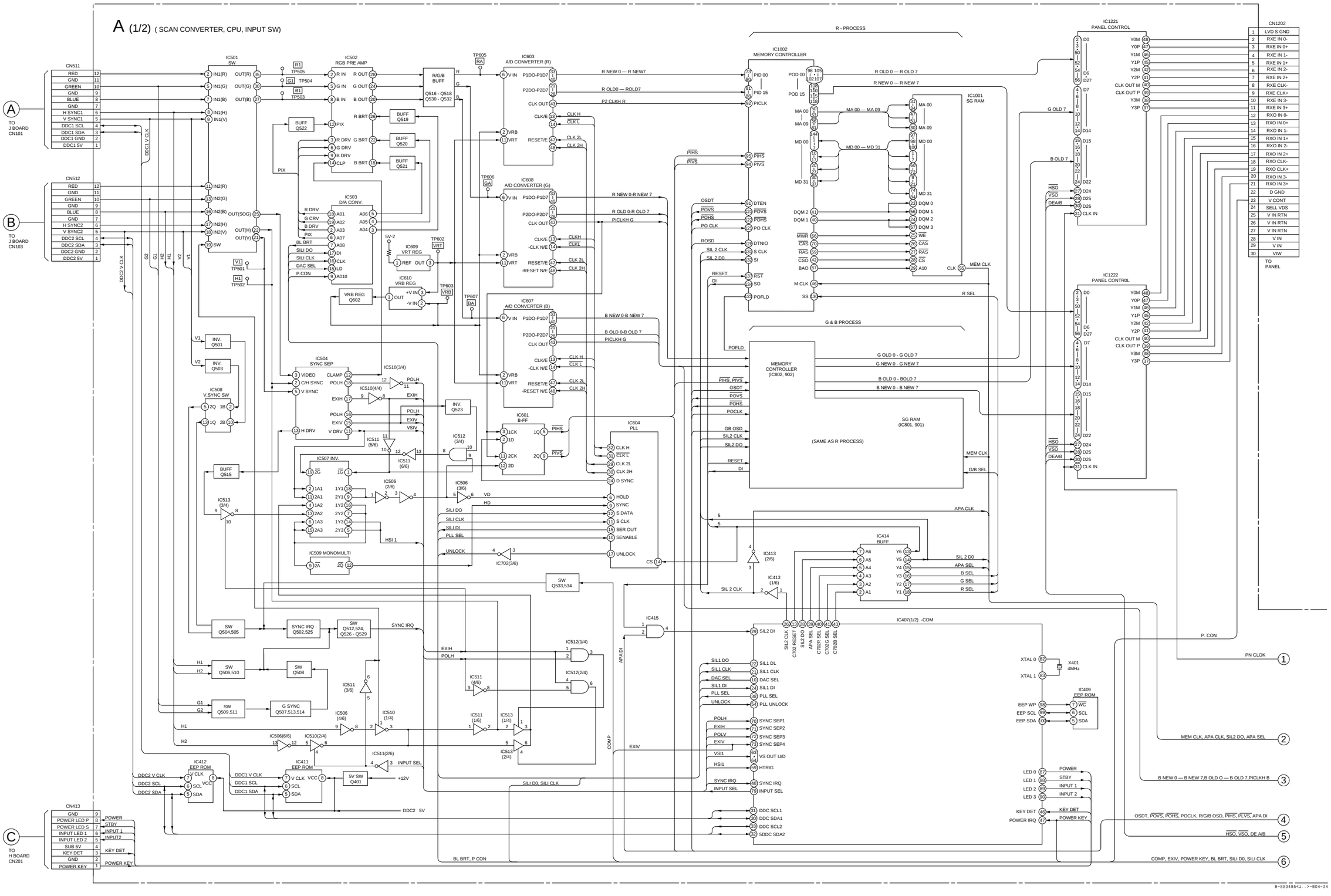
4-1. BLOCK DIAGRAMS



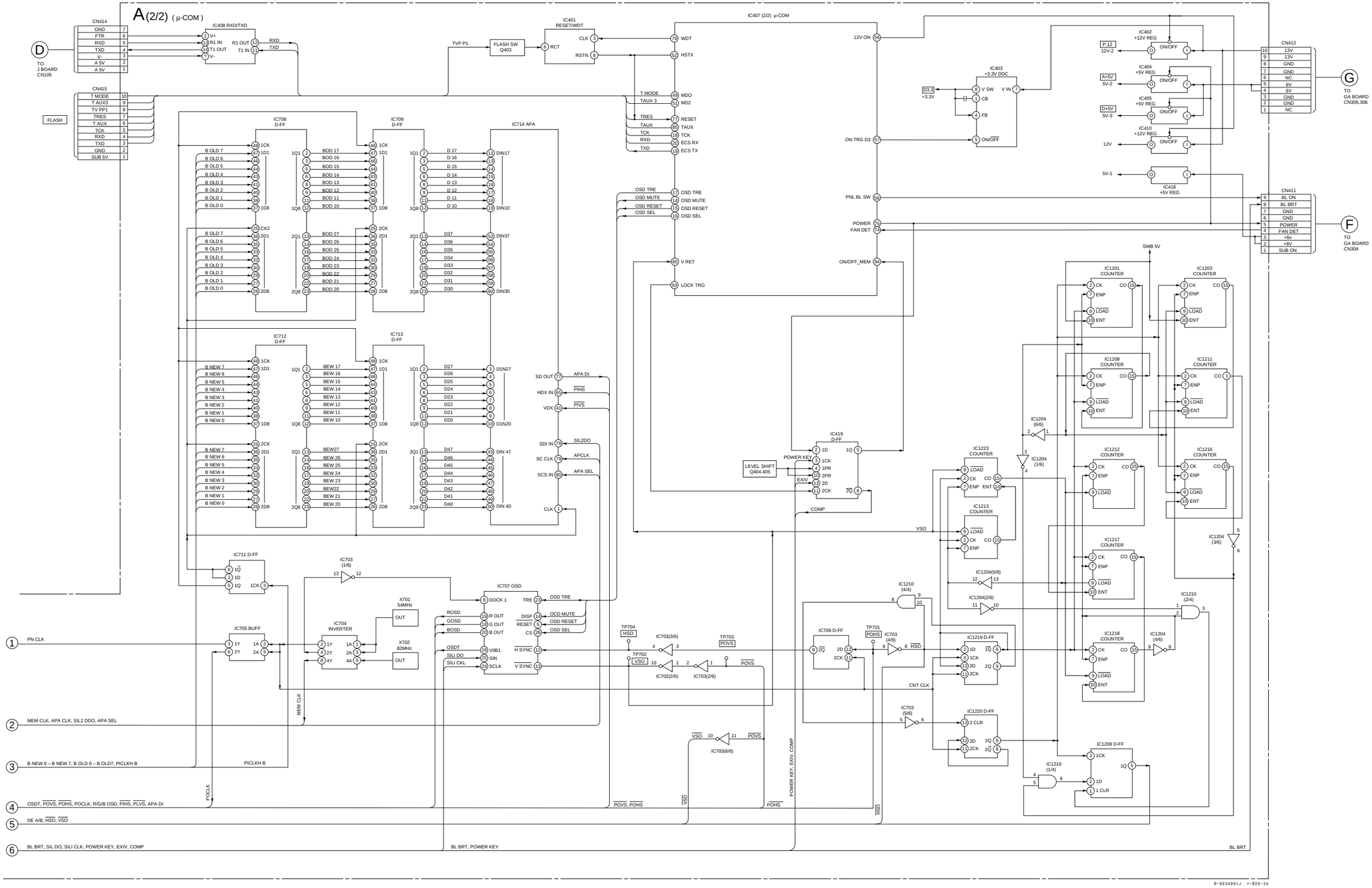




A (1/2) (SCAN CONVERTER, CPU, INPUT SW)

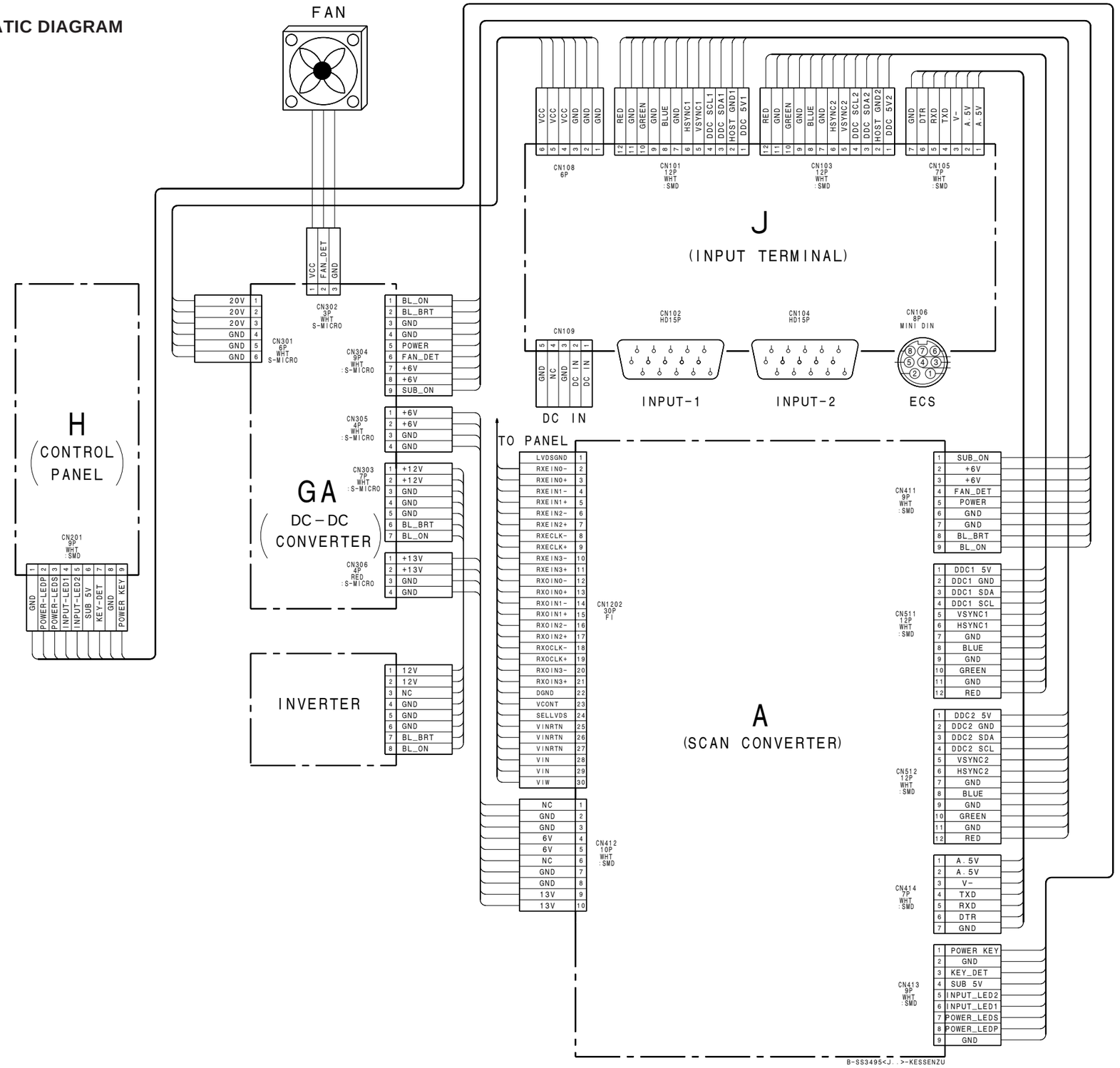


A (2/2) (μ-COM)

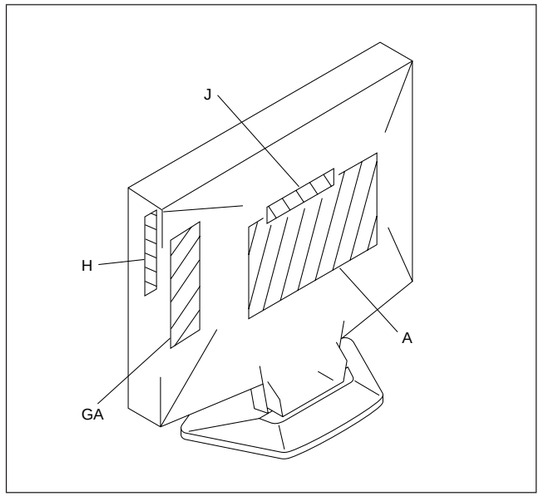


B-SS3495<J..>-BD5-24

4-2. FRAME SCHEMATIC DIAGRAM



4-3. CIRCUIT BOARDS LOCATION



4-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- Circled numbers are waveform references.
- : B + bus.
- : B – bus.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Terminal name of semiconductors in silk screen printed circuit (∗)

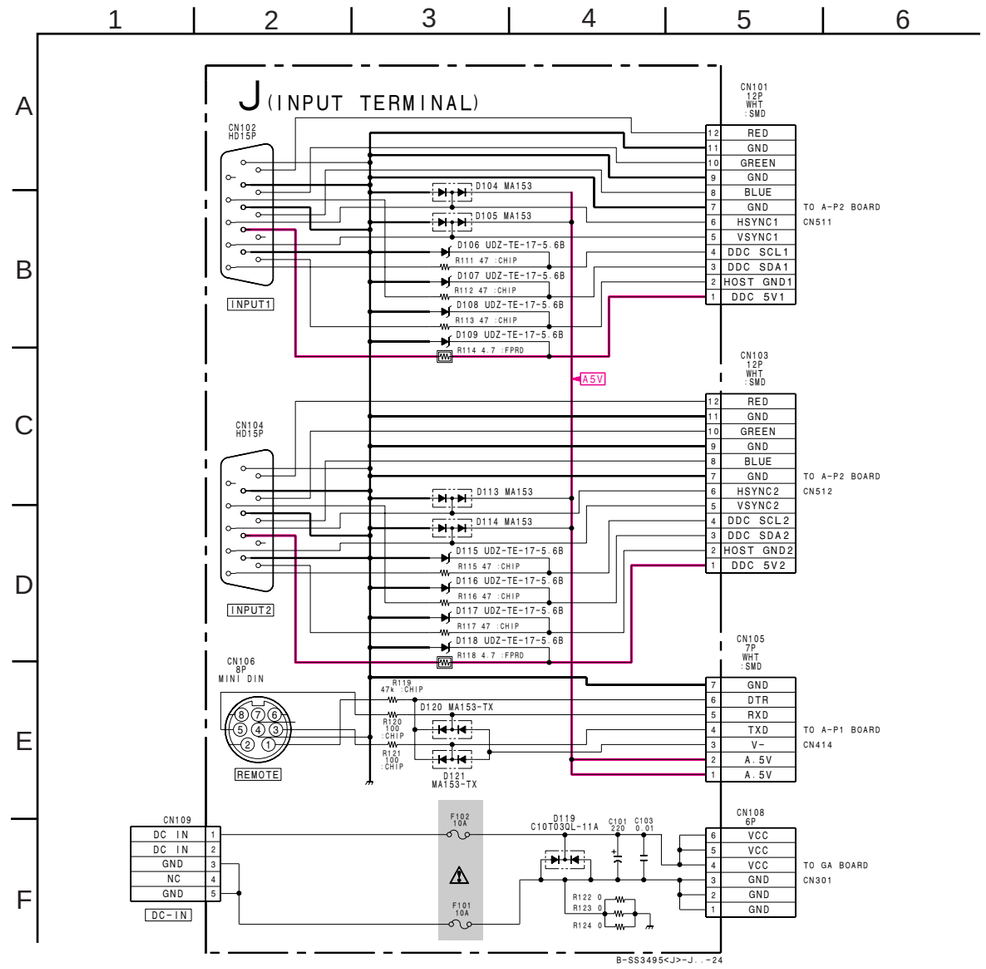
	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base / Emitter	
②	Transistor	—	Collector / Base / Emitter	
③	Diode	⊓	Cathode / Anode	
④	Diode	T	Cathode / Anode (NC)	
⑤	Diode	—	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode / Cathode	
⑦	Diode	—	Common / Anode Cathode	
⑧	Diode	T	Common / Anode / Anode	
⑨	Diode	—	Common / Anode Anode	
⑩	Diode	T	Common / Cathode / Cathode	
⑪	Diode	—	Common / Cathode Cathode	
⑫	Diode	|	Anode Cathode / Anode Anode / Cathode Anode	
⑬	Transistor (FET)	|	Drain / Gate	
⑭	Transistor (FET)	⊢	Drain / Source / Gate	
⑮	Transistor (FET)	|	□ Source / □ Drain / □ Gate	
–	Discrete semiconductot			

(Chip semiconductors that are not actually used are included.)

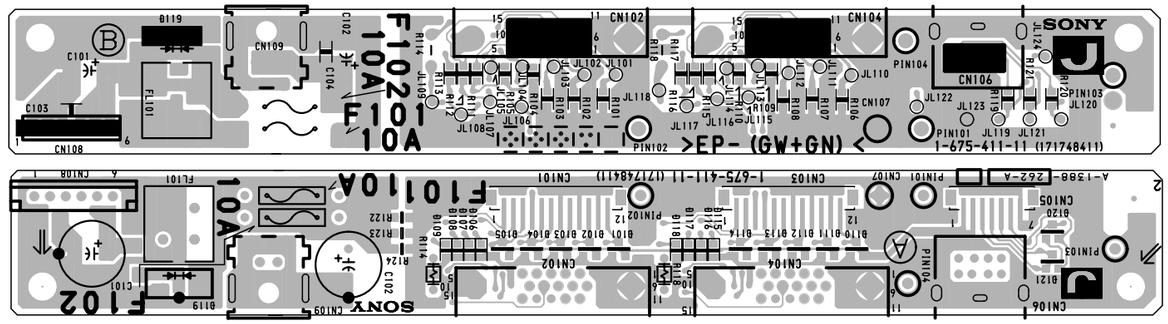
Ver.1.6

Note: Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(1) Schematic Diagram of J Board



— J BOARD (Conductor Side) —



— J BOARD (Component Side) —

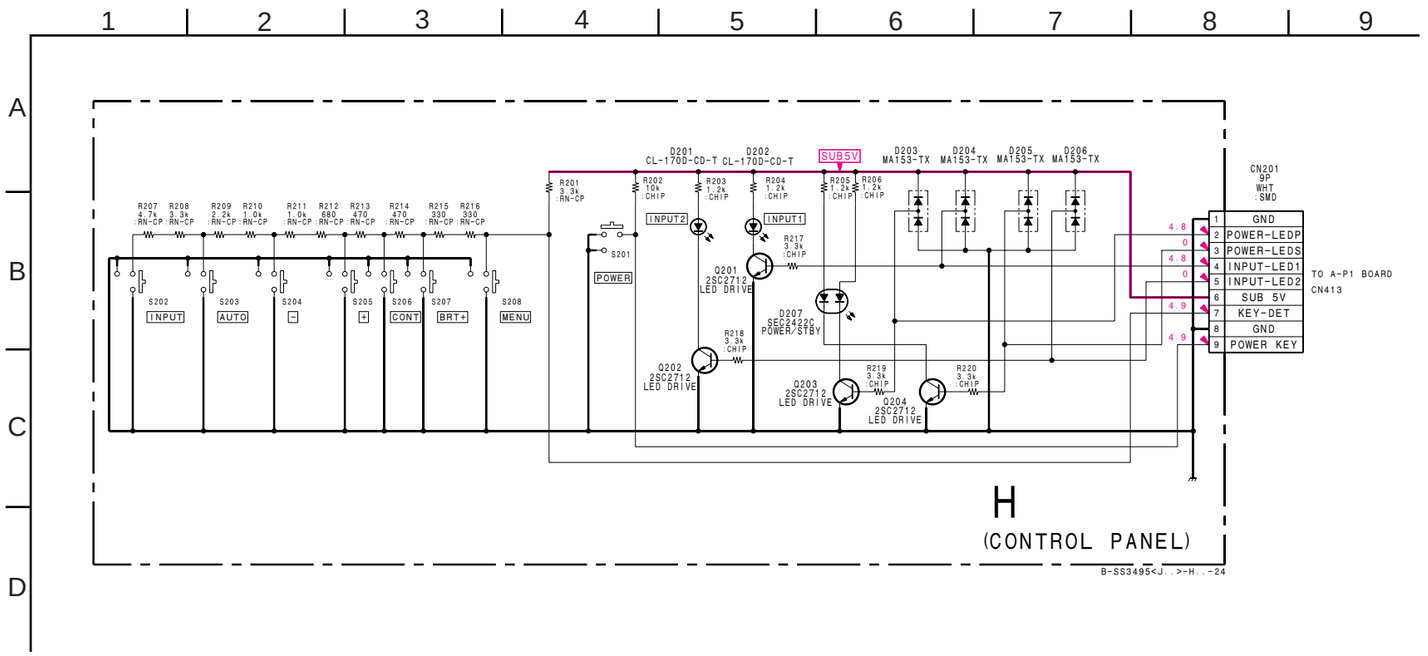
J [INPUT TERMINAL]

J BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D104, D105, D113, D114, D120, D121	⑦
D106 - D109, D115 - D118	③

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 4-9)

(2) Schematic Diagram of H Board



H BOARD

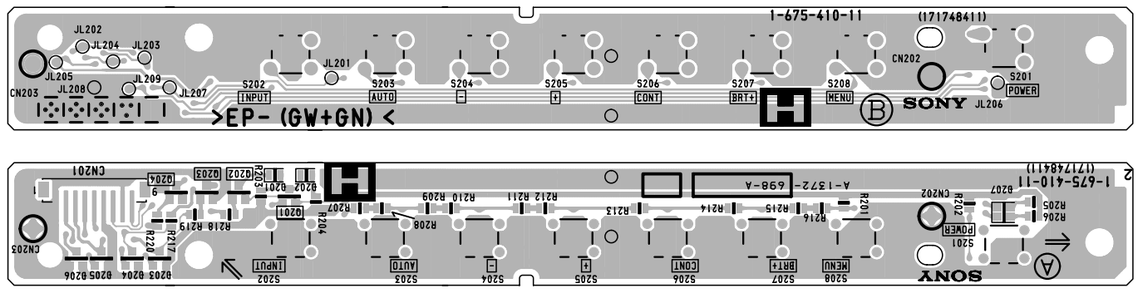
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q201 - Q204	②
D201, D202, D207	③
D203 - D206	⑦

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 4-9)

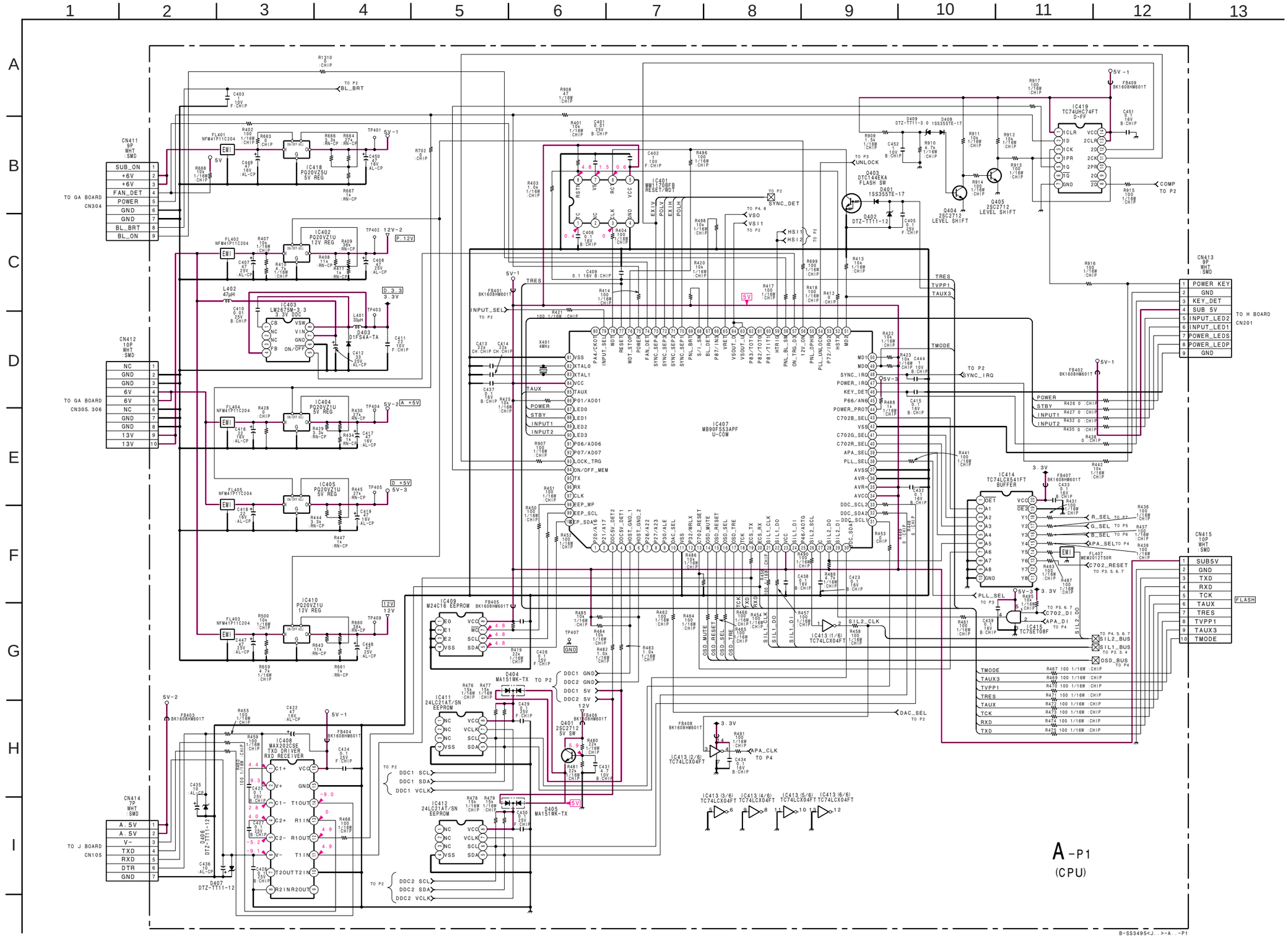
— H BOARD (Conductor Side) —

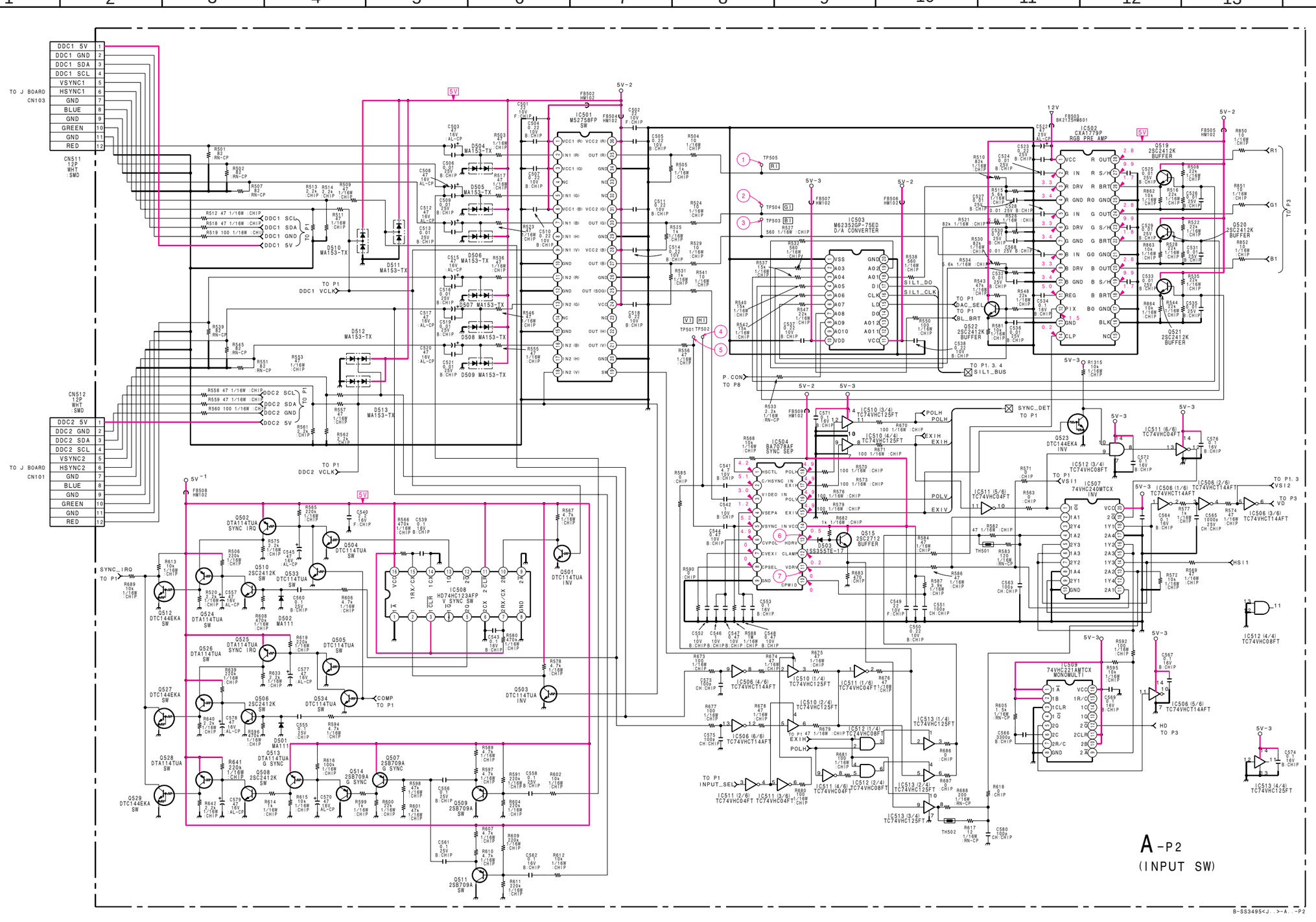
H [CONTROL PANEL]



— H BOARD (Component Side) —

(3) Schematic Diagram of A(P1 - P8) Board

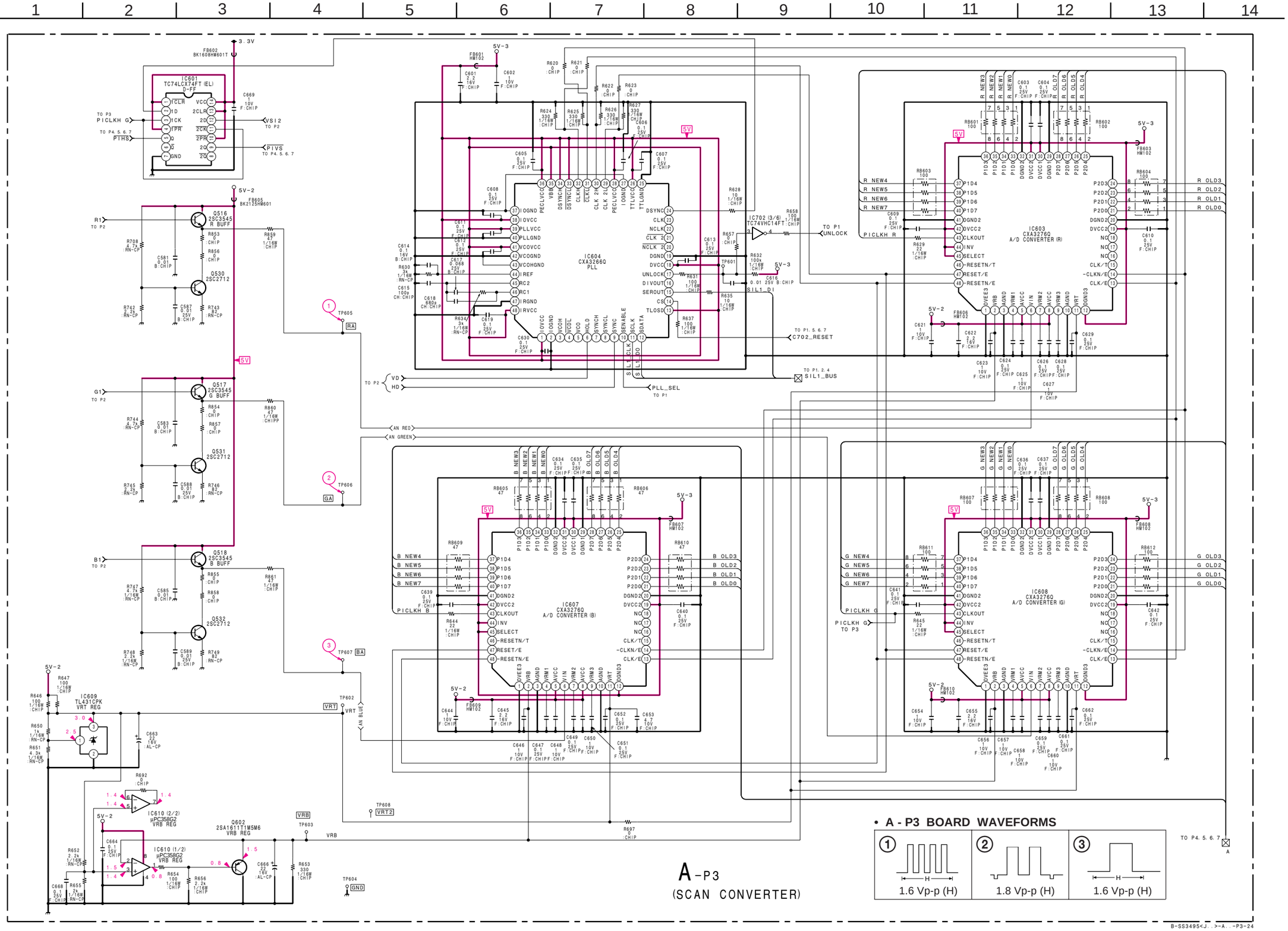




• **A - P2 BOARD WAVEFORMS**

①	②	③	④	⑤	⑥	⑦
0.8 Vp-p (H)	1.0 Vp-p (H)	0.8 Vp-p (H)	5.0 Vp-p (H)	5.0 Vp-p (V)	4.8 Vp-p (H)	5.0 Vp-p (V)

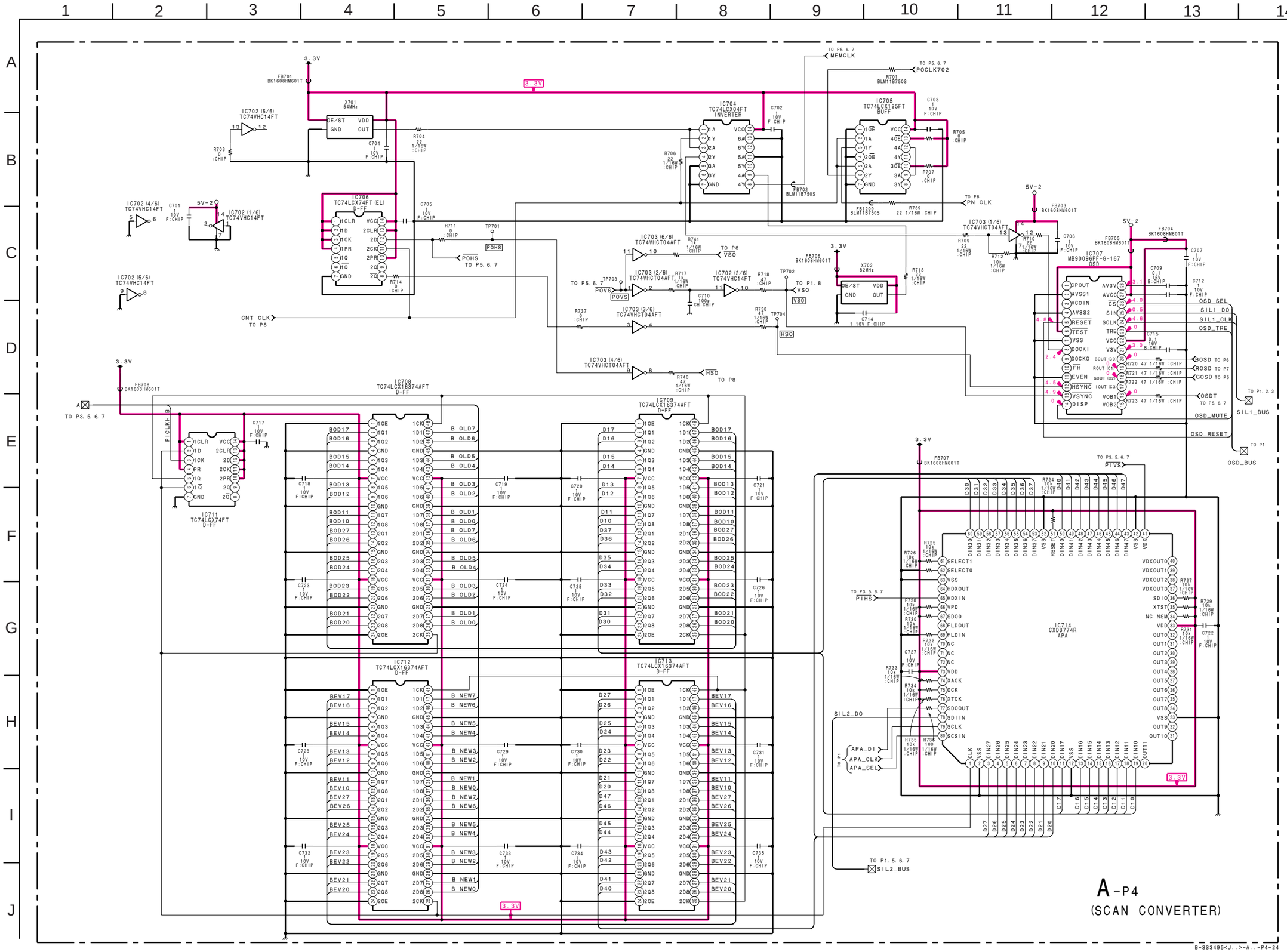
A-P3 (SCAN CONVERTER)



- **A - P3 BOARD WAVEFORMS**

①	②	③
1.6 Vp-p (H)	1.8 Vp-p (H)	1.6 Vp-p (H)

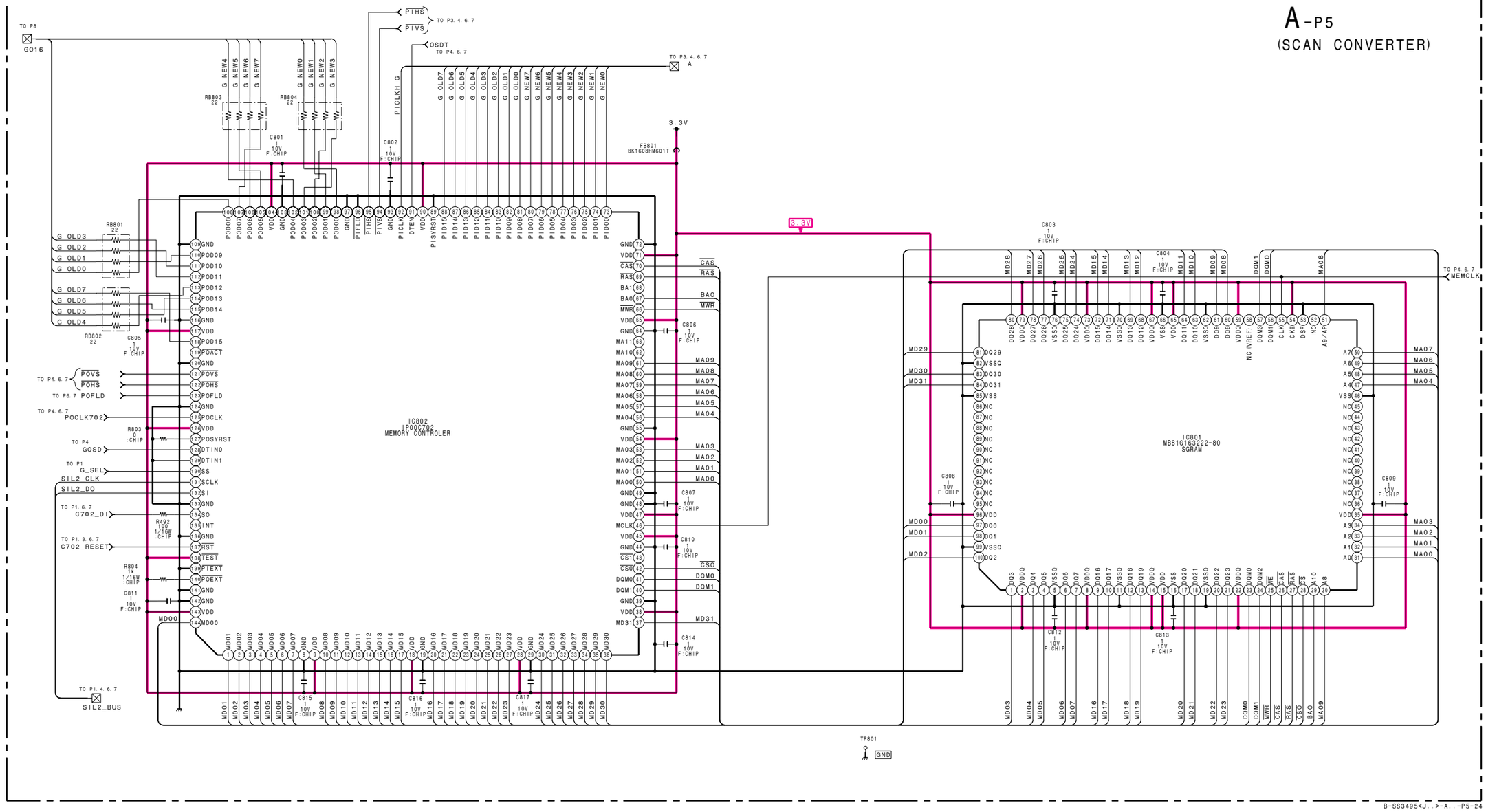
B-SS3495<J. >-A. -P3-24

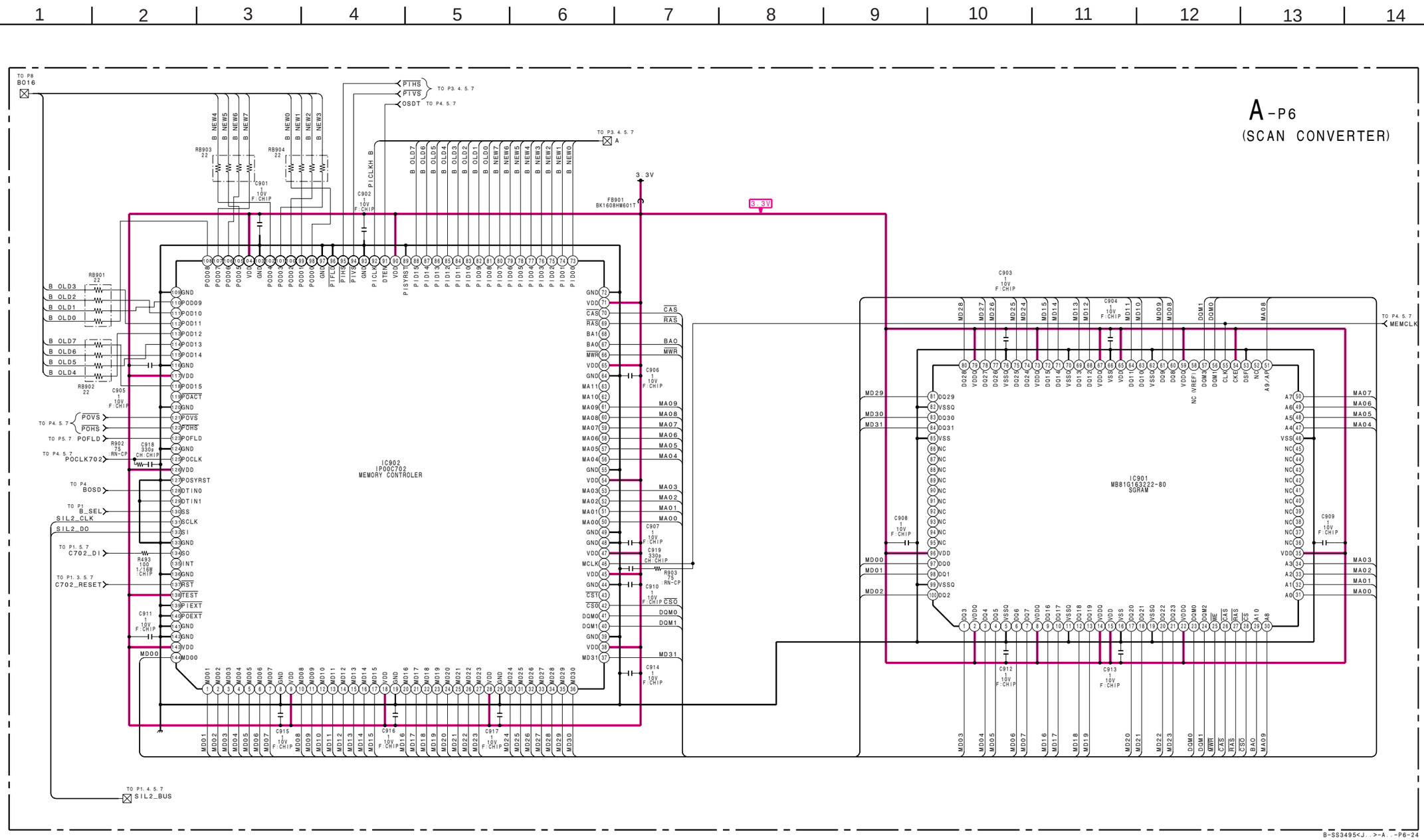


Schematic diagram
← A -P3 board

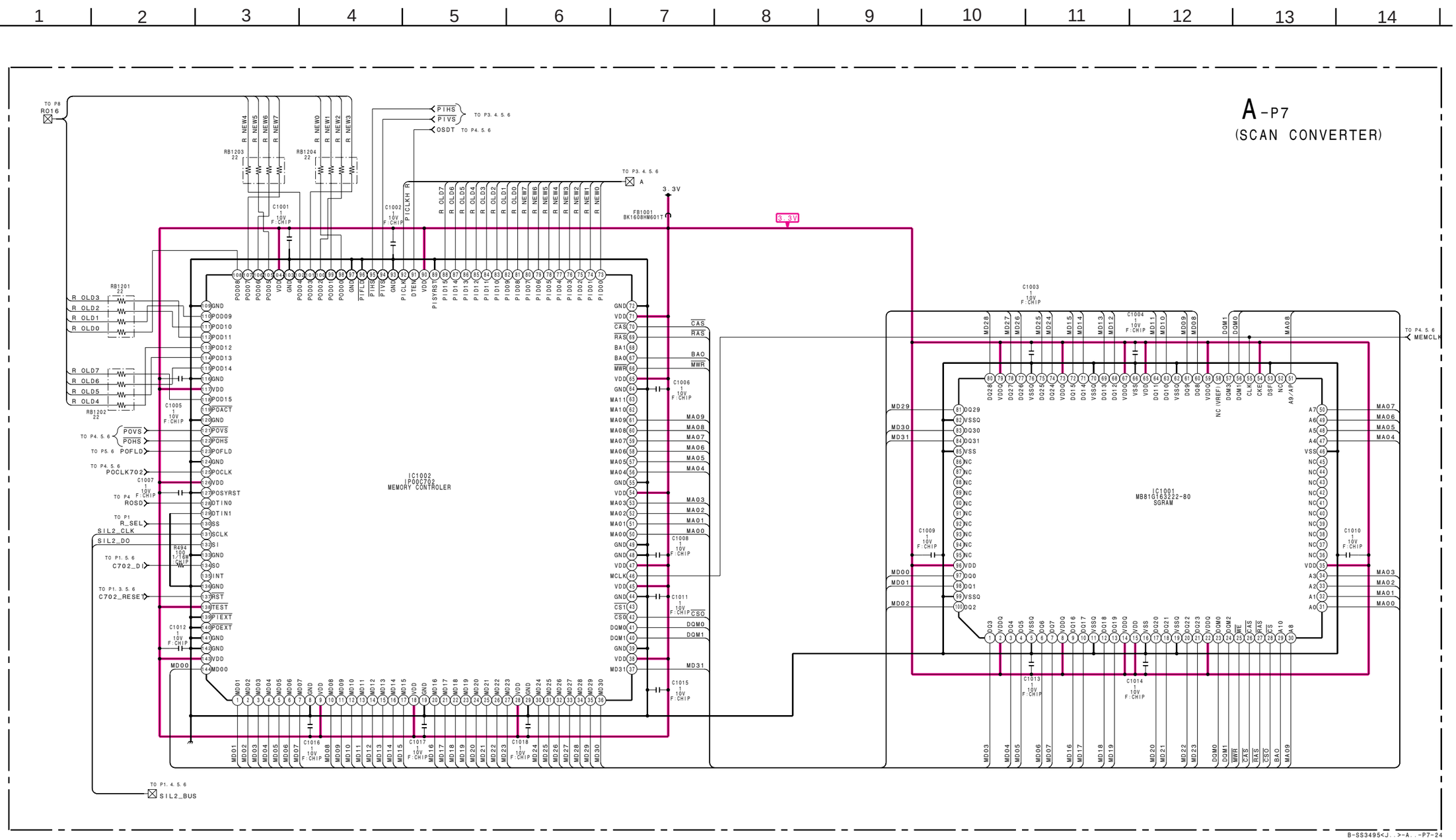
Schematic diagram
A -P4 board →

A-P5
(SCAN CONVERTER)

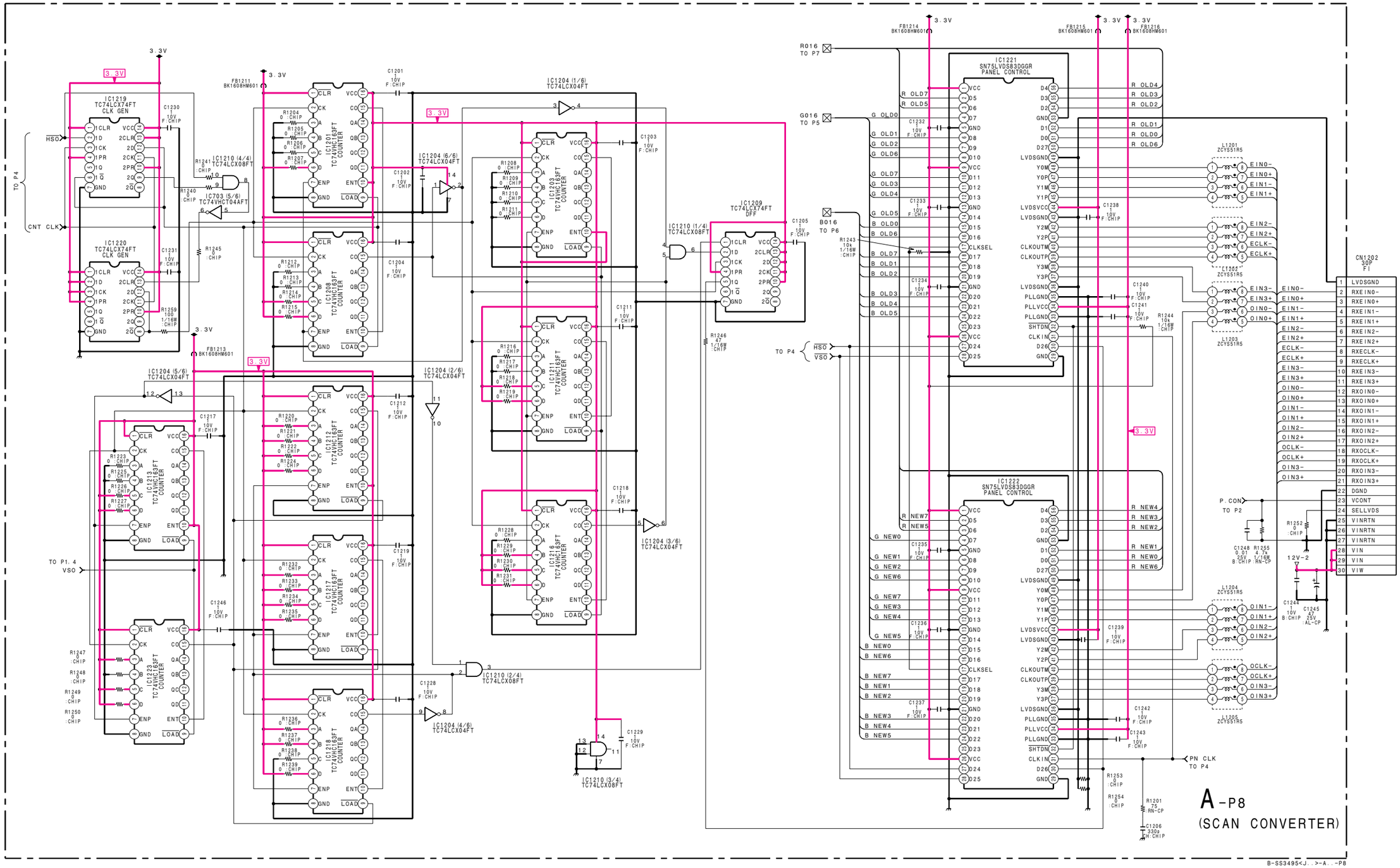



A-P6
(SCAN CONVERTER)
IC902
IP00C702
MEMORY CONTROLER
IC901
MB81G163222-80
SGRAM
3.3V
MEMCLK
POCLK702
SIL2_CLK
SIL2_DO
SIL2_BUS
C702_DI
C702_RESET
BOSD
B_SEL
POVS
POHS
POFLD
POACT
PTHS
PTVS
OSDT
P1CLKH_B
CAS
RAS
BA0
MWR
DQM0
DQM1
MA00
MA01
MA02
MA03
MA04
MA05
MA06
MA07
MA08
MA09
MD00
MD01
MD02
MD03
MD04
MD05
MD06
MD07
MD08
MD09
MD10
MD11
MD12
MD13
MD14
MD15
MD16
MD17
MD18
MD19
MD20
MD21
MD22
MD23
MD24
MD25
MD26
MD27
MD28
MD29
MD30
MD31
B_OLD0
B_OLD1
B_OLD2
B_OLD3
B_OLD4
B_OLD5
B_OLD6
B_OLD7
B_NEW0
B_NEW1
B_NEW2
B_NEW3
B_NEW4
B_NEW5
B_NEW6
B_NEW7
B-SS3495<J..>-A..-P6-24

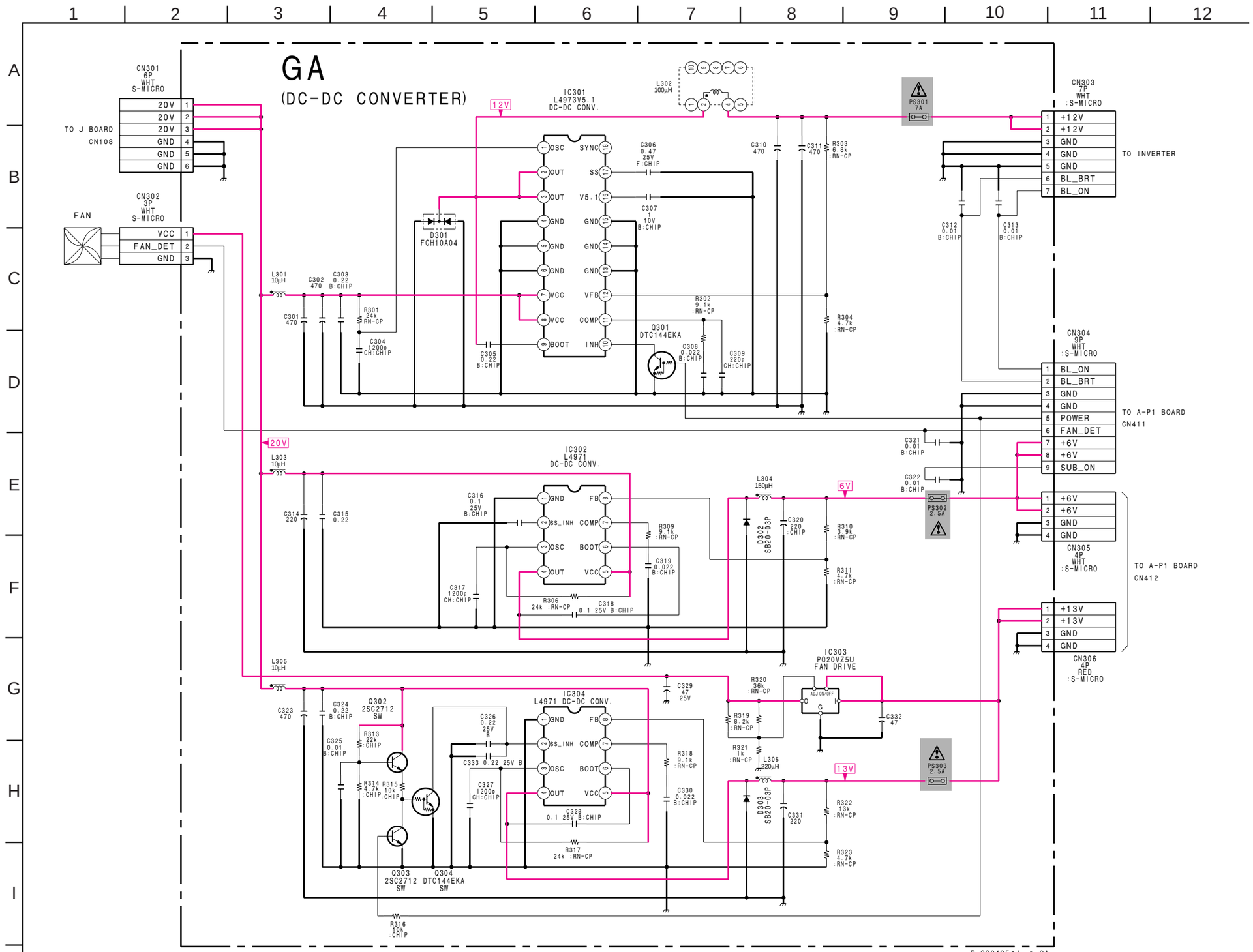
A-P7
(SCAN CONVERTER)



B-SS3495<J..>-A..-P7-24


A-P8
(SCAN CONVERTER)
B-SS3495<J..>-A..-P8
IC1221 SN75LVDS83DGGR PANEL CONTROL
IC1222 SN75LVDS83DGGR PANEL CONTROL
CN1202 30P FI
LVDSGND
RXEIN0-
RXEIN0+
RXEIN1-
RXEIN1+
RXEIN2-
RXEIN2+
RXECLK-
RXECLK+
RXEIN3-
RXEIN3+
RXOIN0-
RXOIN0+
RXOIN1-
RXOIN1+
RXOIN2-
RXOIN2+
RXOCLK-
RXOCLK+
RXOIN3-
RXOIN3+
DGND
VCONT
SELLVDS
VINRTN
VINRTN
VINRTN
VIN
VIN
VIW
3.3V
12V-2
P.CON TO P2
PN CLK TO P4
TO P1, 4
TO P4
R016 TO P7
G016 TO P5
B016 TO P6
IC1219 TC74LCX74FT CLK GEN
IC1220 TC74LCX74FT CLK GEN
IC1204 (1/6) TC74LCX04FT
IC1204 (2/6) TC74LCX04FT
IC1204 (3/6) TC74LCX04FT
IC1204 (4/6) TC74LCX04FT
IC1204 (5/6) TC74LCX04FT
IC1204 (6/6) TC74LCX04FT
IC1703 (5/6) TC74VHCT04AFT
IC1210 (1/4) TC74LCX08FT
IC1210 (2/4) TC74LCX08FT
IC1210 (3/4) TC74LCX08FT
IC1209 TC74LCX74FT DFF
IC1210 (1/4) TC74LCX08FT
IC1201 TC74VHC163FT COUNTER
IC1202 TC74VHC163FT COUNTER
IC1203 TC74VHC163FT COUNTER
IC1211 TC74VHC163FT COUNTER
IC1212 TC74VHC163FT COUNTER
IC1213 TC74VHC163FT COUNTER
IC1214 TC74VHC163FT COUNTER
IC1215 TC74VHC163FT COUNTER
IC1216 TC74VHC163FT COUNTER
IC1217 TC74VHC163FT COUNTER
IC1218 TC74VHC163FT COUNTER
IC1223 TC74VHC163FT COUNTER
FB1214 BK1608HM601
FB1215 BK1608HM601
FB1216 BK1608HM601
FB1211 BK1608HM601
FB1213 BK1608HM601
L1201 ZCYS51R5
L1202 ZCYS51R5
L1203 ZCYS51R5
L1204 ZCYS51R5
L1205 ZCYS51R5

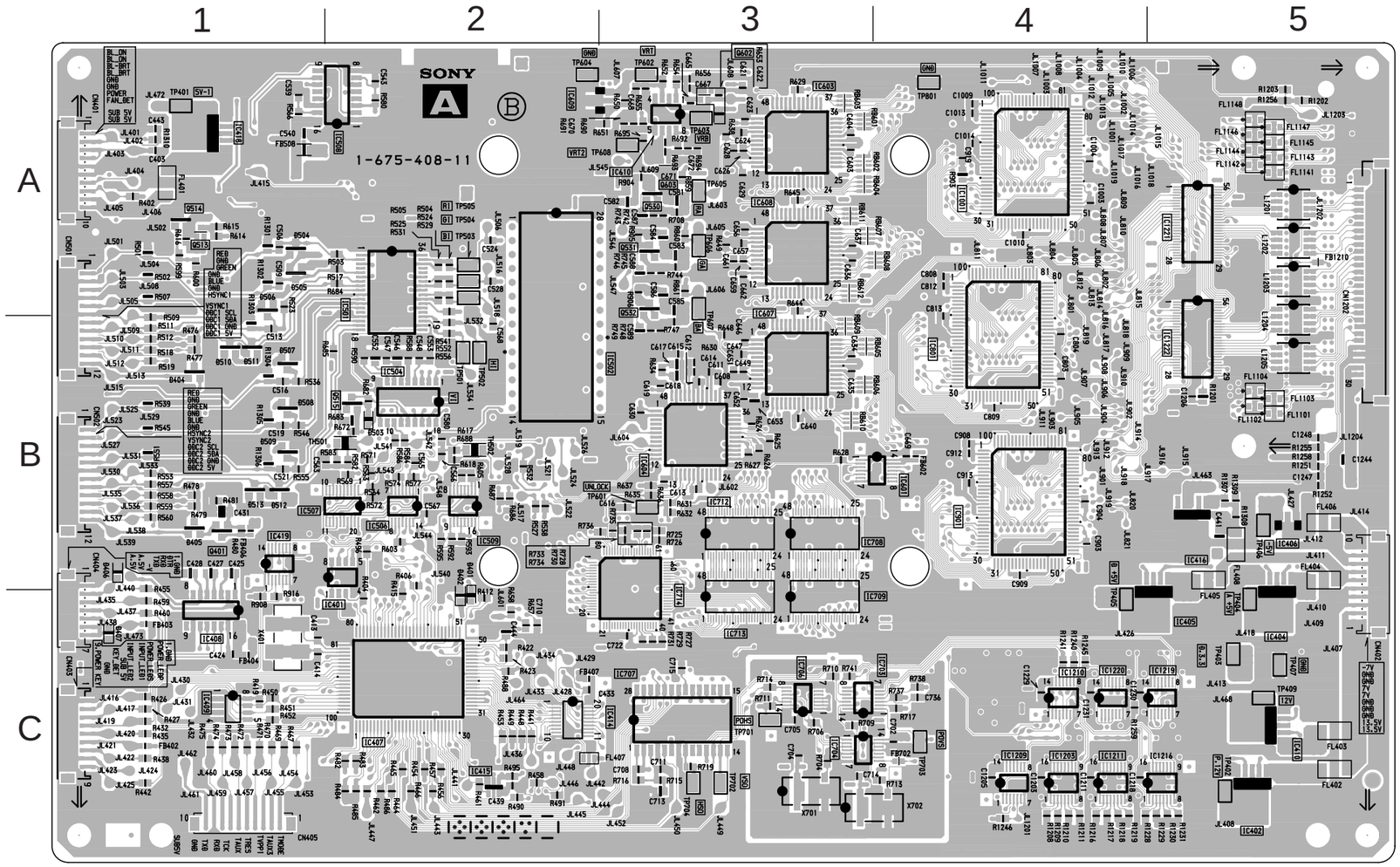
(4) Schematic Diagram of GA Board



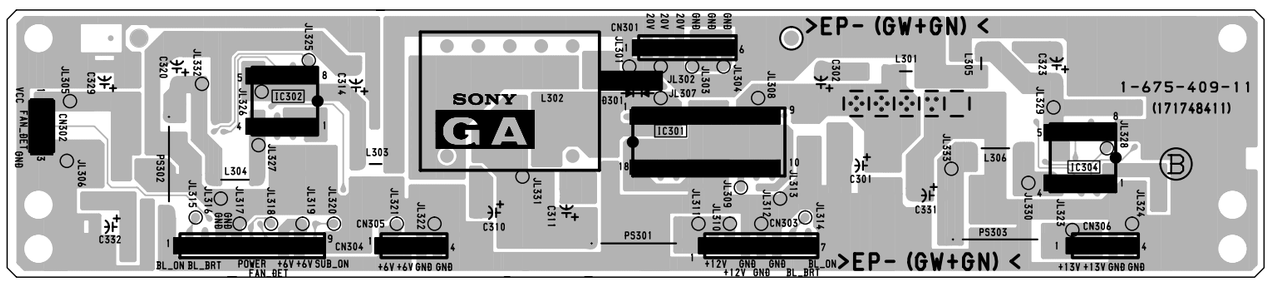
A ［SCAN CONVERTER, CPU, INUT SW］

GA ［DC-DC CONVERTER］

— A BOARD (Conductor Side) —



— GA BOARD (Conductor Side) —



GA BOARD

Terminal name of semiconductors in silk screen printed circuit (*)

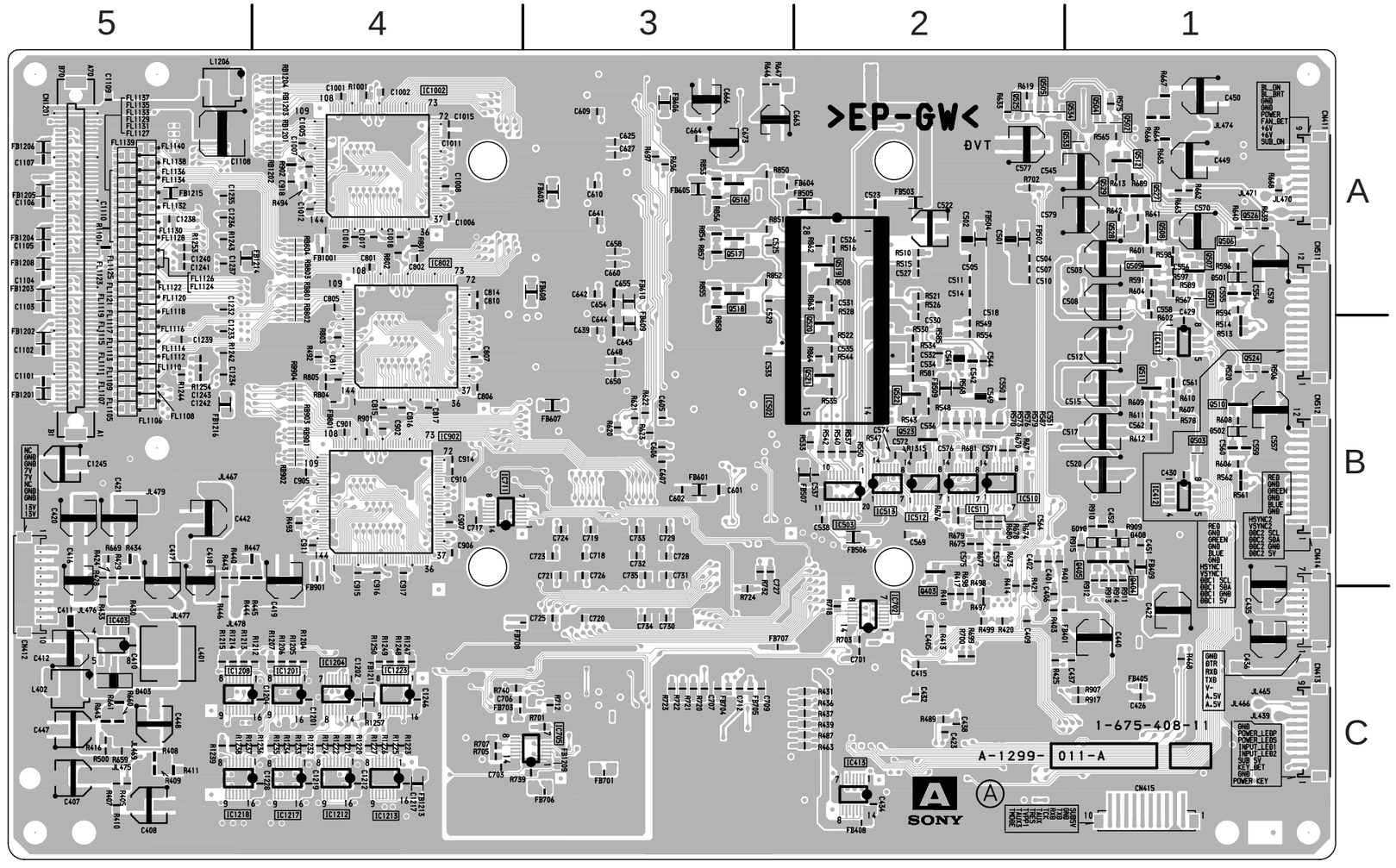
Ref.	*
Q301 - Q304	②
D302, D303	⑤

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 4-9)**

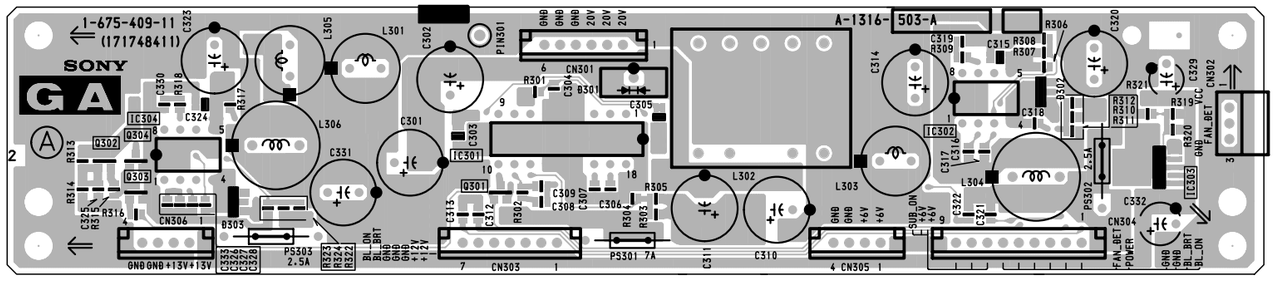
Schematic diagram

← **GA board**

— A BOARD (Component Side) —



— GA BOARD (Component Side) —



• A BOARD SEMICONDUCTOR LOCATION

IC	(Conductor Side)	(Component Side)
IC401	B–2	
IC402	C–5	
IC403		C–5
IC404	C–5	
IC405	C–5	
IC407	C–2	
IC408	C–1	
IC409	C–1	
IC410	C–5	
IC411		B–1
IC412		B–1
IC413		C-2
IC414	C–2	
IC415	C–2	
IC418	A–1	
IC419	B–1	
IC501	A–2	
IC502	B–2	B–2
IC503		B–2
IC504	B–2	
IC506	B–2	
IC507	B–2	
IC508	A–2	
IC509	B–2	
IC510		B–2
IC511		B–2
IC512		B–2
IC513		B–2
IC601	B–4	
IC603	A–3	
IC604	B–3	
IC607	B–3	
IC608	A–3	
IC609	A–3	
IC610	A–3	
IC702		C–2
IC703	C–3	
IC704	C–3	
IC705		C–3
IC706	C–3	
IC707	C–3	
IC708	B–3	
IC709	B–3	
IC711		B–4
IC712	B–3	
IC713	C–3	
IC714	C–3	
IC801	A–4	
IC802		A–4
IC901	B–4	
IC902		B–4
IC1001	A–4	
IC1002		A–4
IC1201		C–4
IC1203	C–4	
IC1204		C–4
IC1208		C–4
IC1209	C–4	
IC1210	C–4	
IC1211	C–4	
IC1212		C–4
IC1213		C–4
IC1216	C–5	
IC1217		C–4
IC1218		C–5
IC1219	C–5	
IC1220	C–4	
IC1221	A–5	
IC1222	A–5	
IC1223		C-4

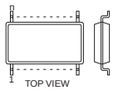
TRANSISTOR	(Conductor Side)	(Component Side)	✻
Q401	B–1		②
Q403		B–2	②
Q404		B–2	②
Q405		B–2	②
Q501		A–1	②
Q502		A–1	②
Q503		B–1	②
Q504		A–1	②
Q505		A–2	②
Q506		A–1	②
Q507		A–1	②
Q508		A–1	②
Q509		A–1	②
Q510		B–1	②
Q511		B–1	②
Q512		A–1	②
Q513	A–1		②
Q514	A–1		②
Q515	B–2		②
Q516		A–3	②
Q517		A–3	②
Q518		A–3	②
Q519		A–2	②
Q520		B–2	②
Q521		B–2	②
Q522		B–2	②
Q523		B–2	②
Q524		B–1	②
Q525		A–1	②
Q526		A–1	②
Q527		A–1	②
Q528		A–1	②
Q529		A–1	②
Q530	A–3		②
Q531	A–3		②
Q532	A–3		②
Q533		A–1	②
Q534		A–1	②
Q602	A–3		②

DIODE	(Conductor Side)	(Component Side)	✻
D401	B–2		③
D402	B–2		③
D403		C–5	③
D404	B–1		⑨
D405	B–1		⑨
D406	B–1		③
D407	C–1		③
D408		B–1	③
D409		B–1	③
D501		A–1	③
D502		B–1	③
D503	B–2		③
D504	A–1		⑦
D505	A–1		⑦
D506	A–1		⑦
D507	B–1		⑦
D508	B–1		⑦
D509	B–1		⑦
D510	B–1		⑦
D511	B–1		⑦
D512	B–1		⑦
D513	B–1		⑦

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 4-9)

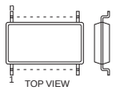
4-5. SEMICONDUCTORS

BA10358F-E2
LM2675M-3.3
MM1170BFB
UPC358G2-E2
24LC21AT/SN



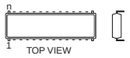
8 pin SOP

BA7078AF-E2



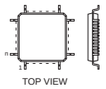
18 pin SOP

CXA1779P



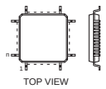
28 pin DIP

CXA3266Q-T6
CXA3276Q



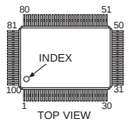
48 pin QFP

CXD8774R

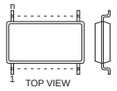


80 pin SOP

EM636327TQ-8
MB81G163222-80
MB90F553APF-G-BND-18A

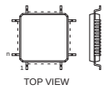


HD74HC123AFP
MAX202CSE
TC74VHC163FT(EL)
74VHC221AMTCX



16 pin SOP

IP00C702

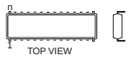


144 pin QFP

L4971
M24C16-MN6T

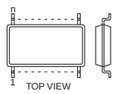
8 pin DIP

L4973V5.1



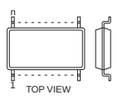
18 pin DIP

MB90096PF-G-167



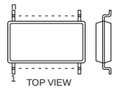
28 pin SOP

M52758FP



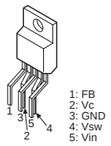
36 pin SOP

M62352GP-75E
TC74LCX541FT(EL)
74VHC240MTCX

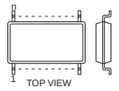


20 pin SOP

PQ20VZ1U
PQ20VZ5U



SN75LVDS83DGGR

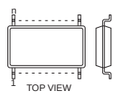


56 pin SOP

TC7SET08F(TE85L)

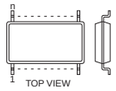
5 pin CHIP

TC74LCX04FT(EL)
TC74LCX08FT(EL)
TC74LCX125FT(EL)
TC74LCX74FT(EL)
TC74VHCT04AFT(EL)
TC74VHCT14AFT(EL)
TC74VHC04FT(EL)
TC74VHC08FT(EL)
TC74VHC14FT(EL)
TC74VHC125FT(EL)
TC74VHC74FT(EL)



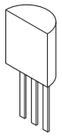
14 pin SOP

TC74LCX16374AFT(EL)



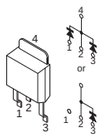
48 pin SOP

TL431CPK-E2

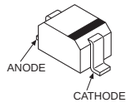


DTA114TUA-T106
DTC114EKA
DTC114TUA-T106
DTC144EKA-T146
DTC144EKA
2SA1162-G
2SA1611-M5M6
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-T-146-QR
2SC2712-YG
2SC3545-T43

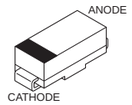
C10T03QL-11A



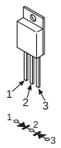
DTZ-TT11-12
DTZ-TT11-3.0
DTZ12
MA111
RD3.0SB2
RD5.6SB
UDZ-TE-17-5.6B
1SS355TE-17



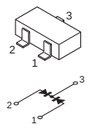
D1FS4A-TA



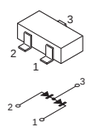
FCH10A04



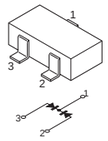
MA151WK-TX
1SS184



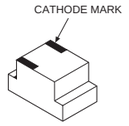
MA153-TX
1SS226



SB20-03P



CL-170D-CD-T
SEC2422C



SECTION 5
EXPLODED VIEWS

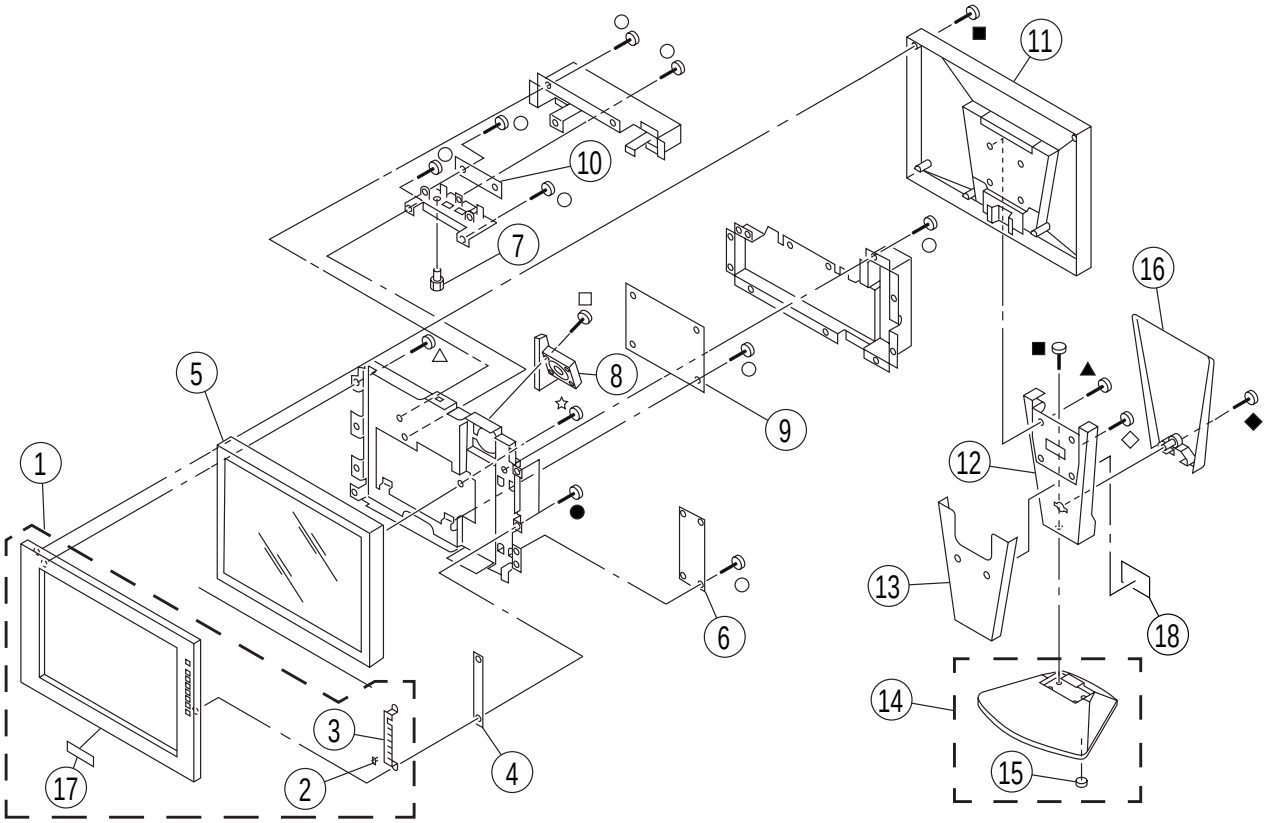
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CHASSIS

●	7-685-648-79	+BVTP 3X12
▲	7-685-882-09	+BVTT 4X10 (S)
■	7-685-663-71	+BVTP 4X16
○	7-685-871-01	+BVTT 3X6 (S)
△	7-685-661-14	+BVTP 4X12
□	7-685-651-79	+BVTP 3X20
◇	7-685-872-09	+BVTT 3X8 (S)
◆	7-624-111-04	STOP RING 7.0, TYPE-E
☆	4-074-387-01	+M2.5X4

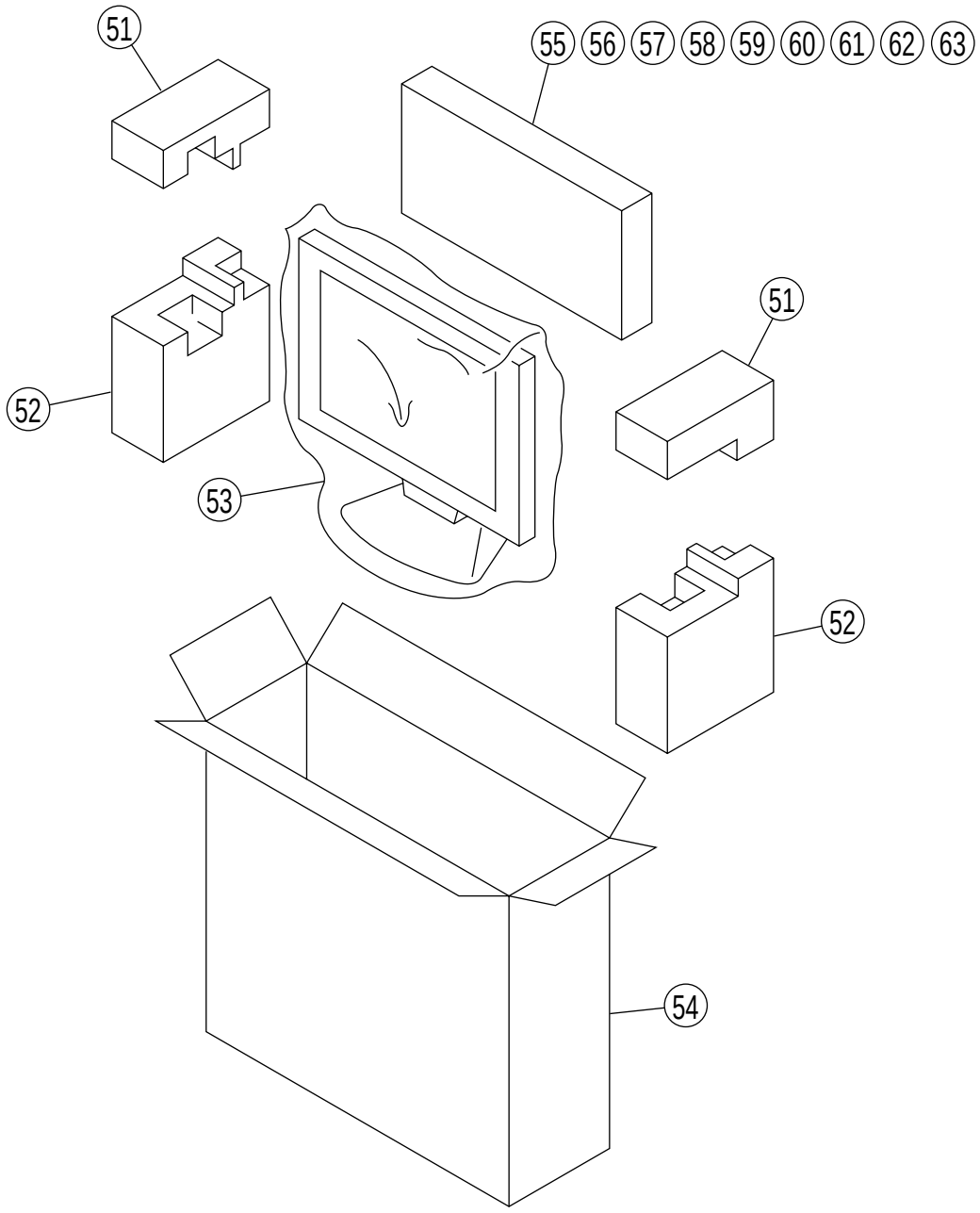


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4037-248-1	BEZEL ASSY	2,3,17
2	4-070-259-01	BAR (B), OPTICAL	
3	X-4036-668-1	BUTTON ASSY, MULTI	
4	* A-1372-698-A	H BOARD, COMPLETE	
5	1-803-831-11	PANEL MODULE, LIQUID CRYSTAL	
6	* A-1316-503-A	GA BOARD, COMPLETE	
7	3-682-057-01	SPACER (SMALL)	
8	1-763-357-11	FAN, DC	
9	* A-1299-011-B	A BOARD, COMPLETE	
10	* A-1388-262-A	J BOARD, COMPLETE	
11	X-4037-245-1	CABINET ASSY	
12	X-4036-665-2	STAND ASSY	
13	4-070-252-01	COVER, STAND	
14	X-4036-669-1	BASE ASSY, STAND	15
15	4-047-474-01	FOOT, RUBBER	
16	X-4036-670-1	REAR COVER ASSY, STAND	
17	4-042-353-21	EMBLEM (NO. 7), SONY	
18	4-073-609-02	LABEL, INFORMATION	

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-2. PACKING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-071-217-01	CUSHION (UPPER ASSY)	
52	* 4-071-218-01	CUSHION (LOWER ASSY)	
53	* 4-378-262-21	BAG, PROTECTION	
54	* 4-071-216-01	INDIVIDUAL CARTON (U/C)	
54	* 4-075-018-01	INDIVIDUAL CARTON (AEP)	
55	* X-4036-670-1	REAR COVER ASSY, STAND	
56	1-759-626-21	DISK, UTILITY	
57	1-759-627-23	DISK, INFORMATION	
58	1-778-967-21	ADAPTOR, CONVERSION	
59	⚠ 1-792-178-11	CORD SET, AC (AEP)	
59	⚠ 1-792-179-11	CORD SET, AC (U/C)	
60	1-790-860-11	CABLE ASSY (15PDSUB CONNECTOR)	
61	3-868-048-11	MANUAL, INSTRUCTION	
62	* 4-069-794-01	BOX, ACCESSORY	
63	1-418-763-11	ADAPTOR,AC	

SECTION 6
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS
  MF : µF
- COILS
  UH : µH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1299-011-B	A BOARD, COMPLET			
		**********			
	<CAPACITOR>				
C401	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C402	1-115-156-11	CERAMIC CHIP 1MF		10V	
C403	1-115-156-11	CERAMIC CHIP 1MF		10V	
C405	1-164-156-11	CERAMIC CHIP 0.1MF		25V	
C406	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C407	1-128-400-11	ELECT CHIP 47MF	20%	25V	
C408	1-128-400-11	ELECT CHIP 47MF	20%	25V	
C409	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C410	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C411	1-119-667-11	CERAMIC CHIP 22MF		10V	
C412	1-107-417-11	ELECT CHIP 33MF	20%	25V	
C413	1-162-919-11	CERAMIC CHIP 22PF	5%	50V	
C414	1-162-919-11	CERAMIC CHIP 22PF	5%	50V	
C415	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C416	1-126-395-11	ELECT CHIP 22MF	20%	16V	
C417	1-104-607-11	ELECT CHIP 47MF	20%	16V	
C418	1-128-451-11	ELECT CHIP 22MF	20%	16V	
C419	1-104-607-11	ELECT CHIP 47MF	20%	16V	
C422	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C423	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C424	1-164-156-11	CERAMIC CHIP 0.1MF		25V	
C425	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C426	1-164-156-11	CERAMIC CHIP 0.1MF		25V	
C427	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C428	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C429	1-164-156-11	CERAMIC CHIP 0.1MF		25V	
C430	1-164-156-11	CERAMIC CHIP 0.1MF		25V	
C431	1-115-566-11	CERAMIC CHIP 4.7MF	10%	10V	
C432	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C433	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C434	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C435	1-126-197-11	ELECT CHIP 10MF	20%	50V	
C436	1-126-197-11	ELECT CHIP 10MF	20%	50V	
C437	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C438	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C439	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C444	1-109-982-11	CERAMIC CHIP 1MF	10%	10V	
C447	1-128-400-11	ELECT CHIP 47MF	20%	25V	
C448	1-128-400-11	ELECT CHIP 47MF	20%	25V	
C449	1-104-607-11	ELECT CHIP 47MF	20%	16V	
C450	1-104-607-11	ELECT CHIP 47MF	20%	16V	
C451	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C452	1-109-982-11	CERAMIC CHIP 1MF	10%	10V	
C501	1-119-667-11	CERAMIC CHIP 22MF		10V	
C502	1-119-667-11	CERAMIC CHIP 22MF		10V	
C503	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C504	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C505	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C506	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C507	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C508	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C509	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C510	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C511	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C512	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C513	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C514	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C515	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C516	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C517	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C518	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C519	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C520	1-126-204-11	ELECT CHIP 47MF	20%	16V	
C521	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C522	1-128-400-11	ELECT CHIP 47MF	20%	25V	
C523	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V	
C524	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C525	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C526	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C527	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C528	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C529	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C530	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C531	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C532	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C533	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C534	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V	
C535	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C536	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	
C537	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	
C538	1-115-467-11	CERAMIC CHIP 0.22MF	10%	10V	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C539	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C540	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C541	1-115-566-11	CERAMIC CHIP 4.7MF	10% 10V
C542	1-109-982-11	CERAMIC CHIP 1MF	10% 10V
C543	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C544	1-125-891-11	CERAMIC CHIP 0.47MF	10% 10V
C545	1-126-204-11	ELECT CHIP 47MF	20% 16V
C546	1-109-982-11	CERAMIC CHIP 1MF	10% 10V
C547	1-125-891-11	CERAMIC CHIP 0.47MF	10% 10V
C548	1-125-891-11	CERAMIC CHIP 0.47MF	10% 10V
C549	1-119-667-11	CERAMIC CHIP 22MF	10V
C550	1-115-467-11	CERAMIC CHIP 0.22MF	10% 10V
C551	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C552	1-109-982-11	CERAMIC CHIP 1MF	10% 10V
C553	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C555	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C556	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C557	1-126-204-11	ELECT CHIP 47MF	20% 16V
C558	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C560	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C561	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C562	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C563	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C564	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C565	1-115-416-11	CERAMIC CHIP 1000PF	5% 25V
C566	1-162-967-11	CERAMIC CHIP 0.0033MF	10% 50V
C567	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C568	1-162-970-11	CERAMIC CHIP 0.01MF	10% 25V
C569	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C570	1-126-204-11	ELECT CHIP 47MF	20% 16V
C571	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C572	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C573	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C574	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C575	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C576	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C577	1-126-204-11	ELECT CHIP 47MF	20% 16V
C578	1-126-204-11	ELECT CHIP 47MF	20% 16V
C579	1-126-204-11	ELECT CHIP 47MF	20% 16V
C580	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C581	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C583	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C585	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C587	1-162-970-11	CERAMIC CHIP 0.01MF	10% 25V
C588	1-162-970-11	CERAMIC CHIP 0.01MF	10% 25V
C589	1-162-970-11	CERAMIC CHIP 0.01MF	10% 25V
C601	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C602	1-115-156-11	CERAMIC CHIP 1MF	10V
C603	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C604	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C605	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C606	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C607	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C608	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C609	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C610	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C611	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C612	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C613	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C614	1-107-826-91	CERAMIC CHIP 0.1MF	10% 16V
C615	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C616	1-162-970-11	CERAMIC CHIP 0.01MF	10% 25V
C617	1-164-344-11	CERAMIC CHIP 0.068MF	10% 25V
C618	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C619	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C621	1-115-156-11	CERAMIC CHIP 1MF	10V
C622	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C623	1-115-156-11	CERAMIC CHIP 1MF	10V
C624	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C625	1-115-156-11	CERAMIC CHIP 1MF	10V
C626	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C627	1-115-156-11	CERAMIC CHIP 1MF	10V
C628	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C629	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C630	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C634	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C635	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C636	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C637	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C639	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C640	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C641	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C642	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C644	1-115-156-11	CERAMIC CHIP 1MF	10V
C645	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C646	1-115-156-11	CERAMIC CHIP 1MF	10V
C647	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C648	1-115-156-11	CERAMIC CHIP 1MF	10V
C649	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C650	1-115-156-11	CERAMIC CHIP 1MF	10V
C651	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C652	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C653	1-117-720-11	CERAMIC CHIP 4.7MF	10V
C654	1-115-156-11	CERAMIC CHIP 1MF	10V
C655	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C656	1-115-156-11	CERAMIC CHIP 1MF	10V
C657	1-115-156-11	CERAMIC CHIP 1MF	10V
C658	1-115-156-11	CERAMIC CHIP 1MF	10V
C659	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C660	1-115-156-11	CERAMIC CHIP 1MF	10V
C661	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C662	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C663	1-128-451-11	ELECT CHIP 22MF	20% 16V
C664	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C666	1-128-451-11	ELECT CHIP 22MF	20% 16V
C668	1-164-156-11	CERAMIC CHIP 0.1MF	25V
C669	1-115-156-11	CERAMIC CHIP 1MF	10V
C701	1-115-156-11	CERAMIC CHIP 1MF	10V
C702	1-115-156-11	CERAMIC CHIP 1MF	10V
C703	1-115-156-11	CERAMIC CHIP 1MF	10V
C704	1-115-156-11	CERAMIC CHIP 1MF	10V
C705	1-115-156-11	CERAMIC CHIP 1MF	10V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C706	1-115-156-11	CERAMIC CHIP 1MF		10V
C707	1-115-156-11	CERAMIC CHIP 1MF		10V
C709	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V
C710	1-162-927-11	CERAMIC CHIP 100PF	5%	50V
C712	1-115-156-11	CERAMIC CHIP 1MF		10V
C714	1-115-156-11	CERAMIC CHIP 1MF		10V
C715	1-107-826-91	CERAMIC CHIP 0.1MF	10%	16V
C717	1-115-156-11	CERAMIC CHIP 1MF		10V
C718	1-115-156-11	CERAMIC CHIP 1MF		10V
C719	1-115-156-11	CERAMIC CHIP 1MF		10V
C720	1-115-156-11	CERAMIC CHIP 1MF		10V
C721	1-115-156-11	CERAMIC CHIP 1MF		10V
C722	1-115-156-11	CERAMIC CHIP 1MF		10V
C723	1-115-156-11	CERAMIC CHIP 1MF		10V
C724	1-115-156-11	CERAMIC CHIP 1MF		10V
C725	1-115-156-11	CERAMIC CHIP 1MF		10V
C726	1-115-156-11	CERAMIC CHIP 1MF		10V
C727	1-115-156-11	CERAMIC CHIP 1MF		10V
C728	1-115-156-11	CERAMIC CHIP 1MF		10V
C729	1-115-156-11	CERAMIC CHIP 1MF		10V
C730	1-115-156-11	CERAMIC CHIP 1MF		10V
C731	1-115-156-11	CERAMIC CHIP 1MF		10V
C732	1-115-156-11	CERAMIC CHIP 1MF		10V
C733	1-115-156-11	CERAMIC CHIP 1MF		10V
C734	1-115-156-11	CERAMIC CHIP 1MF		10V
C735	1-115-156-11	CERAMIC CHIP 1MF		10V
C801	1-115-156-11	CERAMIC CHIP 1MF		10V
C802	1-115-156-11	CERAMIC CHIP 1MF		10V
C803	1-115-156-11	CERAMIC CHIP 1MF		10V
C804	1-115-156-11	CERAMIC CHIP 1MF		10V
C805	1-115-156-11	CERAMIC CHIP 1MF		10V
C806	1-115-156-11	CERAMIC CHIP 1MF		10V
C807	1-115-156-11	CERAMIC CHIP 1MF		10V
C808	1-115-156-11	CERAMIC CHIP 1MF		10V
C809	1-115-156-11	CERAMIC CHIP 1MF		10V
C810	1-115-156-11	CERAMIC CHIP 1MF		10V
C811	1-115-156-11	CERAMIC CHIP 1MF		10V
C812	1-115-156-11	CERAMIC CHIP 1MF		10V
C813	1-115-156-11	CERAMIC CHIP 1MF		10V
C814	1-115-156-11	CERAMIC CHIP 1MF		10V
C815	1-115-156-11	CERAMIC CHIP 1MF		10V
C816	1-115-156-11	CERAMIC CHIP 1MF		10V
C817	1-115-156-11	CERAMIC CHIP 1MF		10V
C901	1-115-156-11	CERAMIC CHIP 1MF		10V
C902	1-115-156-11	CERAMIC CHIP 1MF		10V
C903	1-115-156-11	CERAMIC CHIP 1MF		10V
C904	1-115-156-11	CERAMIC CHIP 1MF		10V
C905	1-115-156-11	CERAMIC CHIP 1MF		10V
C906	1-115-156-11	CERAMIC CHIP 1MF		10V
C907	1-115-156-11	CERAMIC CHIP 1MF		10V
C908	1-115-156-11	CERAMIC CHIP 1MF		10V
C909	1-115-156-11	CERAMIC CHIP 1MF		10V
C910	1-115-156-11	CERAMIC CHIP 1MF		10V
C911	1-115-156-11	CERAMIC CHIP 1MF		10V
C912	1-115-156-11	CERAMIC CHIP 1MF		10V
C913	1-115-156-11	CERAMIC CHIP 1MF		10V
C914	1-115-156-11	CERAMIC CHIP 1MF		10V
C915	1-115-156-11	CERAMIC CHIP 1MF		10V
C916	1-115-156-11	CERAMIC CHIP 1MF		10V
C917	1-115-156-11	CERAMIC CHIP 1MF		10V
C918	1-162-959-11	CERAMIC CHIP 330PF	5%	50V
C919	1-162-959-11	CERAMIC CHIP 330PF	5%	50V
C1001	1-115-156-11	CERAMIC CHIP 1MF		10V
C1002	1-115-156-11	CERAMIC CHIP 1MF		10V
C1003	1-115-156-11	CERAMIC CHIP 1MF		10V
C1004	1-115-156-11	CERAMIC CHIP 1MF		10V
C1005	1-115-156-11	CERAMIC CHIP 1MF		10V
C1006	1-115-156-11	CERAMIC CHIP 1MF		10V
C1007	1-115-156-11	CERAMIC CHIP 1MF		10V
C1008	1-115-156-11	CERAMIC CHIP 1MF		10V
C1009	1-115-156-11	CERAMIC CHIP 1MF		10V
C1010	1-115-156-11	CERAMIC CHIP 1MF		10V
C1011	1-115-156-11	CERAMIC CHIP 1MF		10V
C1012	1-115-156-11	CERAMIC CHIP 1MF		10V
C1013	1-115-156-11	CERAMIC CHIP 1MF		10V
C1014	1-115-156-11	CERAMIC CHIP 1MF		10V
C1015	1-115-156-11	CERAMIC CHIP 1MF		10V
C1016	1-115-156-11	CERAMIC CHIP 1MF		10V
C1017	1-115-156-11	CERAMIC CHIP 1MF		10V
C1018	1-115-156-11	CERAMIC CHIP 1MF		10V
C1110	1-162-959-11	CERAMIC CHIP 330PF	5%	50V
C1201	1-115-156-11	CERAMIC CHIP 1MF		10V
C1202	1-115-156-11	CERAMIC CHIP 1MF		10V
C1203	1-115-156-11	CERAMIC CHIP 1MF		10V
C1204	1-115-156-11	CERAMIC CHIP 1MF		10V
C1205	1-115-156-11	CERAMIC CHIP 1MF		10V
C1206	1-162-959-11	CERAMIC CHIP 330PF	5%	50V
C1211	1-115-156-11	CERAMIC CHIP 1MF		10V
C1212	1-115-156-11	CERAMIC CHIP 1MF		10V
C1217	1-115-156-11	CERAMIC CHIP 1MF		10V
C1218	1-115-156-11	CERAMIC CHIP 1MF		10V
C1219	1-115-156-11	CERAMIC CHIP 1MF		10V
C1228	1-115-156-11	CERAMIC CHIP 1MF		10V
C1229	1-115-156-11	CERAMIC CHIP 1MF		10V
C1230	1-115-156-11	CERAMIC CHIP 1MF		10V
C1231	1-115-156-11	CERAMIC CHIP 1MF		10V
C1232	1-115-156-11	CERAMIC CHIP 1MF		10V
C1233	1-115-156-11	CERAMIC CHIP 1MF		10V
C1234	1-115-156-11	CERAMIC CHIP 1MF		10V
C1235	1-115-156-11	CERAMIC CHIP 1MF		10V
C1236	1-115-156-11	CERAMIC CHIP 1MF		10V
C1237	1-115-156-11	CERAMIC CHIP 1MF		10V
C1238	1-115-156-11	CERAMIC CHIP 1MF		10V
C1239	1-115-156-11	CERAMIC CHIP 1MF		10V
C1240	1-115-156-11	CERAMIC CHIP 1MF		10V
C1241	1-115-156-11	CERAMIC CHIP 1MF		10V
C1242	1-115-156-11	CERAMIC CHIP 1MF		10V
C1243	1-115-156-11	CERAMIC CHIP 1MF		10V
C1244	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1245	1-128-400-11	ELECT CHIP 47MF	20%	25V
C1246	1-115-156-11	CERAMIC CHIP 1MF		10V
C1248	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN411	*1-760-388-11	CONNECTOR PIN (SMD) 9 PIN	
CN412	*1-695-223-21	PIN, CONNECTOR (SMD) 10P	
CN413	*1-760-388-11	CONNECTOR PIN (SMD) 9 PIN	
CN414	*1-580-756-21	PIN, CONNECTOR (SMD) 7P	
CN415	*1-766-382-11	PIN, CONNECTOR (1.5MM)(SMD)10P	
CN511	*1-764-007-11	PIN, CONNECTOR (SMD) 12P	
CN512	*1-764-007-11	PIN, CONNECTOR (SMD) 12P	
CN1202	1-793-809-11	CONNECTOR, BOARD TO WIRE 30P	
		<DIODE>	
D401	8-719-988-61	DIODE 1SS355TE-17	
D402	8-719-977-34	ZENER DIODE DTZ12	
D403	8-719-055-30	DIODE D1FS4A-TA	
D404	8-719-801-78	DIODE 1SS184	
D405	8-719-801-78	DIODE 1SS184	
D406	8-719-977-34	ZENER DIODE DTZ12	
D407	8-719-977-34	ZENER DIODE DTZ12	
D408	8-719-988-61	DIODE 1SS355TE-17	
D409	8-719-157-93	ZENER DIODE RD3.0SB2	
D501	8-719-073-01	DIODE MA111-(K8).S0	
D502	8-719-073-01	DIODE MA111-(K8).S0	
D503	8-719-988-61	DIODE 1SS355TE-17	
D504	8-719-800-76	DIODE 1SS226	
D505	8-719-800-76	DIODE 1SS226	
D506	8-719-800-76	DIODE 1SS226	
D507	8-719-800-76	DIODE 1SS226	
D508	8-719-800-76	DIODE 1SS226	
D509	8-719-800-76	DIODE 1SS226	
D510	8-719-800-76	DIODE 1SS226	
D511	8-719-800-76	DIODE 1SS226	
D512	8-719-800-76	DIODE 1SS226	
D513	8-719-800-76	DIODE 1SS226	
		<FERRITE BEAD>	
FB401	1-414-760-21	INDUCTOR CHIP	
FB402	1-414-760-21	INDUCTOR CHIP	
FB403	1-414-760-21	INDUCTOR CHIP	
FB404	1-414-760-21	INDUCTOR CHIP	
FB405	1-414-760-21	INDUCTOR CHIP	
FB406	1-414-760-21	INDUCTOR CHIP	
FB407	1-414-760-21	INDUCTOR CHIP	
FB408	1-414-760-21	INDUCTOR CHIP	
FB409	1-414-235-22	INDUCTOR CHIP	
FB502	1-414-235-22	INDUCTOR CHIP	
FB503	1-414-234-22	INDUCTOR CHIP	
FB504	1-414-235-22	INDUCTOR CHIP	
FB505	1-414-235-22	INDUCTOR CHIP	
FB506	1-414-235-22	INDUCTOR CHIP	
FB507	1-414-235-22	INDUCTOR CHIP	
FB508	1-414-235-22	INDUCTOR CHIP	
FB509	1-414-235-22	INDUCTOR CHIP	
FB601	1-414-235-22	INDUCTOR CHIP	
FB602	1-414-760-21	INDUCTOR CHIP	
FB603	1-414-235-22	INDUCTOR CHIP	
FB605	1-414-234-22	INDUCTOR CHIP	
FB606	1-414-235-22	INDUCTOR CHIP	
FB607	1-414-235-22	INDUCTOR CHIP	
FB608	1-414-235-22	INDUCTOR CHIP	
FB609	1-414-235-22	INDUCTOR CHIP	
FB610	1-414-235-22	INDUCTOR CHIP	
FB701	1-414-760-21	INDUCTOR CHIP	
FB702	1-216-864-11	SHORT 0	
FB703	1-414-760-21	INDUCTOR CHIP	
FB704	1-414-760-21	INDUCTOR CHIP	
FB705	1-414-760-21	INDUCTOR CHIP	
FB706	1-414-760-21	INDUCTOR CHIP	
FB707	1-414-760-21	INDUCTOR CHIP	
FB708	1-414-760-21	INDUCTOR CHIP	
FB801	1-414-760-21	INDUCTOR CHIP	
FB901	1-414-760-21	INDUCTOR CHIP	
FB1001	1-414-760-21	INDUCTOR CHIP	
FB1209	1-414-748-11	FERRITE	
FB1211	1-414-234-22	INDUCTOR CHIP	
FB1213	1-414-234-22	INDUCTOR CHIP	
FB1214	1-414-234-22	INDUCTOR CHIP	
FB1215	1-414-234-22	INDUCTOR CHIP	
FB1216	1-414-234-22	INDUCTOR CHIP	
		<FILTER>	
FL401	1-239-899-21	FILTER, CHIP EMI	
FL402	1-239-899-21	FILTER, CHIP EMI	
FL403	1-239-899-21	FILTER, CHIP EMI	
FL404	1-239-899-21	FILTER, CHIP EMI	
FL405	1-239-899-21	FILTER, CHIP EMI	
FL407	1-239-897-12	FILTER, EMI (SMD)	
		<IC>	
IC401	8-759-162-80	IC MM1170BFB	
IC402	8-759-388-31	IC PQ20VZ1U	
IC403	8-759-546-88	IC LM2675M-3.3	
IC404	8-759-388-31	IC PQ20VZ1U	
IC405	8-759-388-31	IC PQ20VZ1U	
IC407	8-759-644-71	IC MB90F553APF-G-BND-18A	
IC408	8-759-252-59	IC MAX202CSE	
IC409	8-759-527-77	IC M24C16-MN6T	
IC410	8-759-388-31	IC PQ20VZ1U	
IC411	8-759-442-20	IC 24LC21AT/SN	
IC412	8-759-442-20	IC 24LC21AT/SN	
IC413	8-759-475-35	IC TC74LCX04FT(EL)	
IC414	8-759-475-53	IC TC74LCX541FT(EL)	
IC415	8-759-525-10	IC TC7SET08F(TE85L)	
IC418	8-759-259-77	IC PQ20VZ5U	
IC419	8-759-523-95	IC TC74VHC74FT(EL)	
IC501	8-759-541-25	IC M52758FP	
IC502	8-752-070-09	IC CXA1779P	
IC503	8-759-635-27	IC M62352GP-75E	
IC504	8-759-584-88	IC BA7078AF-E2	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC506	8-759-599-01	IC TC74VHCT14AFT(EL)	
IC507	8-759-472-37	IC 74VHC240MTCX	
IC508	8-759-098-07	IC HD74HC123AFP-T1	
IC509	8-759-472-35	IC 74VHC221AMTCX	
IC510	8-759-524-04	IC TC74VHC125FT(EL)	
IC511	8-759-491-46	IC TC74VHCT04AFT(EL)	
IC512	8-759-523-81	IC TC74VHC08FT(EL)	
IC513	8-759-524-04	IC TC74VHC125FT(EL)	
IC601	8-759-475-39	IC TC74LCX74FT(EL)	
IC603	8-725-091-28	IC CXA3276Q	
IC604	8-752-088-27	IC CXA3266Q-T6	
IC607	8-725-091-28	IC CXA3276Q	
IC608	8-725-091-28	IC CXA3276Q	
IC609	8-759-183-53	IC TL431CPK-E2	
IC610	8-759-510-71	IC BA10358F-E2	
IC702	8-759-523-84	IC TC74VHC14FT(EL)	
IC703	8-759-491-46	IC TC74VHCT04AFT(EL)	
IC704	8-759-475-35	IC TC74LCX04FT(EL)	
IC705	8-759-475-43	IC TC74LCX125FT(EL)	
IC706	8-759-475-39	IC TC74LCX74FT(EL)	
IC707	8-759-584-83	IC MB90096PF-G-167-BND-ER	
IC708	8-759-475-60	IC TC74LCX16374AFT(EL)	
IC709	8-759-475-60	IC TC74LCX16374AFT(EL)	
IC711	8-759-475-39	IC TC74LCX74FT(EL)	
IC712	8-759-475-60	IC TC74LCX16374AFT(EL)	
IC713	8-759-475-60	IC TC74LCX16374AFT(EL)	
IC714	8-759-563-33	IC CXD8774R	
IC801	8-759-585-35	IC EM636327TQ-8	
IC802	8-759-546-23	IC IP00C702	
IC901	8-759-585-35	IC EM636327TQ-8	
IC902	8-759-546-23	IC IP00C702	
IC1001	8-759-585-35	IC EM636327TQ-8	
IC1002	8-759-546-23	IC IP00C702	
IC1201	8-759-524-18	IC TC74VHC163FT(EL)	
IC1203	8-759-524-18	IC TC74VHC163FT(EL)	
IC1204	8-759-475-35	IC TC74LCX04FT(EL)	
IC1208	8-759-524-18	IC TC74VHC163FT(EL)	
IC1209	8-759-475-39	IC TC74LCX74FT(EL)	
IC1210	8-759-475-36	IC TC74LCX08FT(EL)	
IC1211	8-759-524-18	IC TC74VHC163FT(EL)	
IC1212	8-759-524-18	IC TC74VHC163FT(EL)	
IC1213	8-759-524-18	IC TC74VHC163FT(EL)	
IC1216	8-759-524-18	IC TC74VHC163FT(EL)	
IC1217	8-759-524-18	IC TC74VHC163FT(EL)	
IC1218	8-759-524-18	IC TC74VHC163FT(EL)	
IC1219	8-759-475-39	IC TC74LCX74FT(EL)	
IC1220	8-759-475-39	IC TC74LCX74FT(EL)	
IC1221	8-759-644-72	IC SN75LVDS83DGGR	
IC1222	8-759-644-72	IC SN75LVDS83DGGR	
IC1223	8-759-524-18	IC TC74VHC163FT(EL)	
		<COIL>	
L401	1-416-865-21	INDUCTOR 33UH	
L402	1-409-556-11	INDUCTOR 47UH	
L1201	1-234-462-21	FILTER, COMMON MODE	
L1202	1-234-462-21	FILTER, COMMON MODE	
L1203	1-234-462-21	FILTER, COMMON MODE	
L1204	1-234-462-21	FILTER, COMMON MODE	
L1205	1-234-462-21	FILTER, COMMON MODE	
		<TRANSISTOR>	
Q401	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q403	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q405	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q501	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q502	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q503	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q504	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q505	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q506	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q509	8-729-216-22	TRANSISTOR 2SA1162-G	
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-216-22	TRANSISTOR 2SA1162-G	
Q512	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q513	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q514	8-729-216-22	TRANSISTOR 2SA1162-G	
Q515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q516	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q517	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q518	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q519	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q520	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q523	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q524	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q525	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q526	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q527	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q528	8-729-028-74	TRANSISTOR DTA114TUA-T106	
Q529	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q530	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q531	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q532	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q533	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q534	8-729-028-97	TRANSISTOR DTC114TUA-T106	
Q602	8-729-140-63	TRANSISTOR 2SA1611-M5M6	
		<RESISTOR>	
R401	1-216-833-91	RES,CHIP 10K 5% 1/16W	
R402	1-216-809-11	RES,CHIP 100 5% 1/16W	
R403	1-216-821-11	RES,CHIP 1K 5% 1/16W	
R404	1-216-809-11	RES,CHIP 100 5% 1/16W	
R407	1-216-833-91	RES,CHIP 10K 5% 1/16W	
R408	1-216-676-11	METAL CHIP 11K 0.50% 1/10W	
R409	1-216-688-11	METAL CHIP 36K 0.50% 1/10W	
R410	1-216-829-11	RES,CHIP 4.7K 5% 1/16W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R411	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R412	1-216-864-11	SHORT	0		
R413	1-216-833-91	RES,CHIP	10K	5%	1/16W
R414	1-216-809-11	RES,CHIP	100	5%	1/16W
R417	1-216-809-11	RES,CHIP	100	5%	1/16W
R418	1-216-809-11	RES,CHIP	100	5%	1/16W
R419	1-216-837-11	RES,CHIP	22K	5%	1/16W
R420	1-216-833-91	RES,CHIP	10K	5%	1/16W
R421	1-216-809-11	RES,CHIP	100	5%	1/16W
R422	1-216-833-91	RES,CHIP	10K	5%	1/16W
R423	1-216-833-91	RES,CHIP	10K	5%	1/16W
R425	1-216-833-91	RES,CHIP	10K	5%	1/16W
R426	1-216-864-11	SHORT	0		
R427	1-216-864-11	SHORT	0		
R428	1-216-864-11	SHORT	0		
R429	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R430	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R431	1-216-809-11	RES,CHIP	100	5%	1/16W
R432	1-216-864-11	SHORT	0		
R434	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R435	1-216-864-11	SHORT	0		
R436	1-216-809-11	RES,CHIP	100	5%	1/16W
R437	1-216-809-11	RES,CHIP	100	5%	1/16W
R438	1-216-864-11	SHORT	0		
R439	1-216-809-11	RES,CHIP	100	5%	1/16W
R441	1-216-809-11	RES,CHIP	100	5%	1/16W
R442	1-216-833-91	RES,CHIP	10K	5%	1/16W
R444	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R445	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R447	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R448	1-216-864-11	SHORT	0		
R449	1-216-864-11	SHORT	0		
R450	1-216-809-11	RES,CHIP	100	5%	1/16W
R451	1-216-809-11	RES,CHIP	100	5%	1/16W
R452	1-216-809-11	RES,CHIP	100	5%	1/16W
R453	1-216-864-11	SHORT	0		
R454	1-216-809-11	RES,CHIP	100	5%	1/16W
R455	1-216-809-11	RES,CHIP	100	5%	1/16W
R456	1-216-809-11	RES,CHIP	100	5%	1/16W
R457	1-216-809-11	RES,CHIP	100	5%	1/16W
R458	1-216-809-11	RES,CHIP	100	5%	1/16W
R459	1-216-809-11	RES,CHIP	100	5%	1/16W
R460	1-216-809-11	RES,CHIP	100	5%	1/16W
R461	1-216-809-11	RES,CHIP	100	5%	1/16W
R462	1-216-809-11	RES,CHIP	100	5%	1/16W
R463	1-216-809-11	RES,CHIP	100	5%	1/16W
R464	1-216-809-11	RES,CHIP	100	5%	1/16W
R465	1-216-809-11	RES,CHIP	100	5%	1/16W
R466	1-216-809-11	RES,CHIP	100	5%	1/16W
R467	1-216-809-11	RES,CHIP	100	5%	1/16W
R468	1-216-809-11	RES,CHIP	100	5%	1/16W
R469	1-216-809-11	RES,CHIP	100	5%	1/16W
R470	1-216-809-11	RES,CHIP	100	5%	1/16W
R471	1-216-809-11	RES,CHIP	100	5%	1/16W
R472	1-216-809-11	RES,CHIP	100	5%	1/16W
R473	1-216-809-11	RES,CHIP	100	5%	1/16W
R474	1-216-809-11	RES,CHIP	100	5%	1/16W
R475	1-216-809-11	RES,CHIP	100	5%	1/16W
R476	1-216-835-11	RES,CHIP	15K	5%	1/16W
R477	1-216-835-11	RES,CHIP	15K	5%	1/16W
R478	1-216-835-11	RES,CHIP	15K	5%	1/16W
R479	1-216-835-11	RES,CHIP	15K	5%	1/16W
R480	1-216-837-11	RES,CHIP	22K	5%	1/16W
R481	1-216-837-11	RES,CHIP	22K	5%	1/16W
R482	1-216-821-11	RES,CHIP	1K	5%	1/16W
R483	1-216-821-11	RES,CHIP	1K	5%	1/16W
R484	1-216-833-91	RES,CHIP	10K	5%	1/16W
R485	1-216-833-91	RES,CHIP	10K	5%	1/16W
R486	1-216-833-91	RES,CHIP	10K	5%	1/16W
R487	1-216-809-11	RES,CHIP	100	5%	1/16W
R488	1-216-821-11	RES,CHIP	1K	5%	1/16W
R489	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R490	1-216-809-11	RES,CHIP	100	5%	1/16W
R491	1-216-809-11	RES,CHIP	100	5%	1/16W
R492	1-216-809-11	RES,CHIP	100	5%	1/16W
R493	1-216-809-11	RES,CHIP	100	5%	1/16W
R494	1-216-809-11	RES,CHIP	100	5%	1/16W
R495	1-216-833-91	RES,CHIP	10K	5%	1/16W
R496	1-216-809-11	RES,CHIP	100	5%	1/16W
R498	1-216-833-91	RES,CHIP	10K	5%	1/16W
R500	1-216-833-91	RES,CHIP	10K	5%	1/16W
R501	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R502	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R503	1-216-805-11	RES,CHIP	47	5%	1/16W
R504	1-216-797-11	RES,CHIP	10	5%	1/16W
R505	1-216-821-11	RES,CHIP	1K	5%	1/16W
R506	1-216-849-11	RES,CHIP	220K	5%	1/16W
R507	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R508	1-216-837-11	RES,CHIP	22K	5%	1/16W
R509	1-216-805-11	RES,CHIP	47	5%	1/16W
R510	1-216-844-11	RES,CHIP	82K	5%	1/16W
R511	1-216-805-11	RES,CHIP	47	5%	1/16W
R512	1-216-805-11	RES,CHIP	47	5%	1/16W
R513	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R514	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R515	1-216-830-11	RES,CHIP	5.6K	5%	1/16W
R516	1-216-837-11	RES,CHIP	22K	5%	1/16W
R517	1-216-805-11	RES,CHIP	47	5%	1/16W
R518	1-216-805-11	RES,CHIP	47	5%	1/16W
R519	1-216-809-11	RES,CHIP	100	5%	1/16W
R520	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R521	1-216-844-11	RES,CHIP	82K	5%	1/16W
R522	1-216-837-11	RES,CHIP	22K	5%	1/16W
R523	1-216-805-11	RES,CHIP	47	5%	1/16W
R524	1-216-797-11	RES,CHIP	10	5%	1/16W
R525	1-216-821-11	RES,CHIP	1K	5%	1/16W
R526	1-216-830-11	RES,CHIP	5.6K	5%	1/16W
R527	1-216-818-11	RES,CHIP	560	5%	1/16W
R528	1-216-837-11	RES,CHIP	22K	5%	1/16W
R529	1-216-797-11	RES,CHIP	10	5%	1/16W
R530	1-216-844-11	RES,CHIP	82K	5%	1/16W
R531	1-216-821-11	RES,CHIP	1K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R532	1-216-818-11	RES,CHIP	560	5%	1/16W
R533	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R534	1-216-830-11	RES,CHIP	5.6K	5%	1/16W
R535	1-216-837-11	RES,CHIP	22K	5%	1/16W
R536	1-216-805-11	RES,CHIP	47	5%	1/16W
R537	1-216-835-11	RES,CHIP	15K	5%	1/16W
R538	1-216-818-11	RES,CHIP	560	5%	1/16W
R539	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R540	1-216-835-11	RES,CHIP	15K	5%	1/16W
R541	1-216-797-11	RES,CHIP	10	5%	1/16W
R542	1-216-835-11	RES,CHIP	15K	5%	1/16W
R543	1-216-841-11	RES,CHIP	47K	5%	1/16W
R544	1-216-837-11	RES,CHIP	22K	5%	1/16W
R545	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R546	1-216-805-11	RES,CHIP	47	5%	1/16W
R547	1-216-837-11	RES,CHIP	22K	5%	1/16W
R548	1-216-837-11	RES,CHIP	22K	5%	1/16W
R550	1-216-809-11	RES,CHIP	100	5%	1/16W
R551	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R553	1-216-805-11	RES,CHIP	47	5%	1/16W
R555	1-216-805-11	RES,CHIP	47	5%	1/16W
R556	1-216-805-11	RES,CHIP	47	5%	1/16W
R557	1-216-805-11	RES,CHIP	47	5%	1/16W
R558	1-216-805-11	RES,CHIP	47	5%	1/16W
R559	1-216-805-11	RES,CHIP	47	5%	1/16W
R560	1-216-809-11	RES,CHIP	100	5%	1/16W
R561	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R562	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R563	1-216-864-11	SHORT	0		
R565	1-216-849-11	RES,CHIP	220K	5%	1/16W
R566	1-216-853-11	RES,CHIP	470K	5%	1/16W
R567	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R568	1-216-833-91	RES,CHIP	10K	5%	1/16W
R569	1-216-805-11	RES,CHIP	47	5%	1/16W
R570	1-216-809-11	RES,CHIP	100	5%	1/16W
R571	1-216-864-11	SHORT	0		
R572	1-216-833-91	RES,CHIP	10K	5%	1/16W
R573	1-216-809-11	RES,CHIP	100	5%	1/16W
R574	1-216-805-11	RES,CHIP	47	5%	1/16W
R575	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R576	1-216-809-11	RES,CHIP	100	5%	1/16W
R577	1-216-821-11	RES,CHIP	1K	5%	1/16W
R578	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R579	1-216-809-11	RES,CHIP	100	5%	1/16W
R580	1-216-853-11	RES,CHIP	470K	5%	1/16W
R581	1-216-833-91	RES,CHIP	10K	5%	1/16W
R582	1-216-805-11	RES,CHIP	47	5%	1/16W
R583	1-218-670-11	METAL CHIP	120	0.50%	1/16W
R584	1-216-805-11	RES,CHIP	47	5%	1/16W
R585	1-216-864-11	SHORT	0		
R586	1-216-805-11	RES,CHIP	47	5%	1/16W
R587	1-216-828-11	RES,CHIP	3.9K	5%	1/16W
R588	1-216-857-11	RES,CHIP	1M	5%	1/16W
R589	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R590	1-216-864-11	SHORT	0		
R591	1-216-849-11	RES,CHIP	220K	5%	1/16W
R592	1-216-809-11	RES,CHIP	100	5%	1/16W
R594	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R595	1-216-833-91	RES,CHIP	10K	5%	1/16W
R596	1-216-853-11	RES,CHIP	470K	5%	1/16W
R597	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R598	1-216-841-11	RES,CHIP	47K	5%	1/16W
R599	1-216-821-11	RES,CHIP	1K	5%	1/16W
R600	1-216-837-11	RES,CHIP	22K	5%	1/16W
R601	1-216-841-11	RES,CHIP	47K	5%	1/16W
R602	1-216-833-91	RES,CHIP	10K	5%	1/16W
R604	1-216-849-11	RES,CHIP	220K	5%	1/16W
R605	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R606	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R607	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R608	1-216-853-11	RES,CHIP	470K	5%	1/16W
R609	1-216-849-11	RES,CHIP	220K	5%	1/16W
R610	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R611	1-216-849-11	RES,CHIP	220K	5%	1/16W
R612	1-216-833-91	RES,CHIP	10K	5%	1/16W
R613	1-216-833-91	RES,CHIP	10K	5%	1/16W
R614	1-216-821-11	RES,CHIP	1K	5%	1/16W
R615	1-216-833-91	RES,CHIP	10K	5%	1/16W
R616	1-216-845-11	RES,CHIP	100K	5%	1/16W
R617	1-218-646-11	METAL CHIP	12	0.50%	1/16W
R618	1-216-864-11	SHORT	0		
R619	1-216-849-11	RES,CHIP	220K	5%	1/16W
R620	1-216-864-11	SHORT	0		
R621	1-216-864-11	SHORT	0		
R622	1-216-864-11	SHORT	0		
R623	1-216-864-11	SHORT	0		
R624	1-216-815-11	RES,CHIP	330	5%	1/16W
R625	1-216-815-11	RES,CHIP	330	5%	1/16W
R626	1-216-815-11	RES,CHIP	330	5%	1/16W
R627	1-216-815-11	RES,CHIP	330	5%	1/16W
R628	1-216-797-11	RES,CHIP	10	5%	1/16W
R629	1-216-801-11	RES,CHIP	22	5%	1/16W
R630	1-218-703-11	METAL CHIP	3K	0.50%	1/16W
R631	1-216-809-11	RES,CHIP	100	5%	1/16W
R632	1-216-845-11	RES,CHIP	100K	5%	1/16W
R633	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R634	1-218-703-11	METAL CHIP	3K	0.50%	1/16W
R635	1-216-797-11	RES,CHIP	10	5%	1/16W
R637	1-216-809-11	RES,CHIP	100	5%	1/16W
R639	1-216-849-11	RES,CHIP	220K	5%	1/16W
R640	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R641	1-216-849-11	RES,CHIP	220K	5%	1/16W
R642	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R643	1-216-676-11	METAL CHIP	11K	0.50%	1/10W
R644	1-216-801-11	RES,CHIP	22	5%	1/16W
R645	1-216-801-11	RES,CHIP	22	5%	1/16W
R646	1-216-809-11	RES,CHIP	100	5%	1/16W
R647	1-216-809-11	RES,CHIP	100	5%	1/16W
R650	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R651	1-218-707-11	METAL CHIP	4.3K	0.50%	1/16W
R652	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R653	1-216-815-11	RES,CHIP	330	5%	1/16W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R654	1-216-809-11	RES,CHIP	100	5%	1/16W
R655	1-218-699-11	METAL CHIP	2K	0.50%	1/16W
R656	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R657	1-216-864-11	SHORT	0		
R658	1-216-809-11	RES,CHIP	100	5%	1/16W
R659	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R660	1-216-688-11	METAL CHIP	36K	0.50%	1/10W
R661	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R663	1-216-864-11	SHORT	0		
R664	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R666	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R667	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R668	1-216-833-91	RES,CHIP	10K	5%	1/16W
R670	1-216-809-11	RES,CHIP	100	5%	1/16W
R671	1-216-809-11	RES,CHIP	100	5%	1/16W
R673	1-216-809-11	RES,CHIP	100	5%	1/16W
R674	1-216-805-11	RES,CHIP	47	5%	1/16W
R675	1-216-805-11	RES,CHIP	47	5%	1/16W
R676	1-216-805-11	RES,CHIP	47	5%	1/16W
R677	1-216-809-11	RES,CHIP	100	5%	1/16W
R678	1-216-805-11	RES,CHIP	47	5%	1/16W
R679	1-216-805-11	RES,CHIP	47	5%	1/16W
R680	1-216-809-11	RES,CHIP	100	5%	1/16W
R681	1-216-809-11	RES,CHIP	100	5%	1/16W
R682	1-216-821-11	RES,CHIP	1K	5%	1/16W
R683	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R686	1-216-864-11	SHORT	0		
R687	1-216-864-11	SHORT	0		
R688	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R689	1-216-833-91	RES,CHIP	10K	5%	1/16W
R692	1-216-864-11	SHORT	0		
R697	1-216-864-11	SHORT	0		
R699	1-216-809-11	RES,CHIP	100	5%	1/16W
R701	1-414-748-11	FERRITE			
R702	1-216-864-11	SHORT	0		
R703	1-216-864-11	SHORT	0		
R704	1-216-801-11	RES,CHIP	22	5%	1/16W
R705	1-216-864-11	SHORT	0		
R706	1-216-801-11	RES,CHIP	22	5%	1/16W
R707	1-216-864-11	SHORT	0		
R708	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R709	1-216-801-11	RES,CHIP	22	5%	1/16W
R710	1-216-801-11	RES,CHIP	22	5%	1/16W
R711	1-216-864-11	SHORT	0		
R712	1-216-833-91	RES,CHIP	10K	5%	1/16W
R713	1-216-801-11	RES,CHIP	22	5%	1/16W
R714	1-216-864-11	SHORT	0		
R717	1-216-821-11	RES,CHIP	1K	5%	1/16W
R718	1-216-805-11	RES,CHIP	47	5%	1/16W
R720	1-216-805-11	RES,CHIP	47	5%	1/16W
R721	1-216-805-11	RES,CHIP	47	5%	1/16W
R722	1-216-805-11	RES,CHIP	47	5%	1/16W
R723	1-216-805-11	RES,CHIP	47	5%	1/16W
R724	1-216-833-91	RES,CHIP	10K	5%	1/16W
R725	1-216-833-91	RES,CHIP	10K	5%	1/16W
R726	1-216-833-91	RES,CHIP	10K	5%	1/16W
R727	1-216-833-91	RES,CHIP	10K	5%	1/16W
R728	1-216-833-91	RES,CHIP	10K	5%	1/16W
R729	1-216-833-91	RES,CHIP	10K	5%	1/16W
R730	1-216-833-91	RES,CHIP	10K	5%	1/16W
R731	1-216-833-91	RES,CHIP	10K	5%	1/16W
R732	1-216-833-91	RES,CHIP	10K	5%	1/16W
R733	1-216-833-91	RES,CHIP	10K	5%	1/16W
R734	1-216-833-91	RES,CHIP	10K	5%	1/16W
R735	1-216-833-91	RES,CHIP	10K	5%	1/16W
R736	1-216-809-11	RES,CHIP	100	5%	1/16W
R737	1-216-864-11	SHORT	0		
R738	1-216-805-11	RES,CHIP	47	5%	1/16W
R739	1-216-801-11	RES,CHIP	22	5%	1/16W
R740	1-216-805-11	RES,CHIP	47	5%	1/16W
R741	1-216-805-11	RES,CHIP	47	5%	1/16W
R742	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R743	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R744	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R745	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R746	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R747	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R748	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R749	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R803	1-216-864-11	SHORT	0		
R804	1-216-821-11	RES,CHIP	1K	5%	1/16W
R850	1-216-797-11	RES,CHIP	10	5%	1/16W
R851	1-216-797-11	RES,CHIP	10	5%	1/16W
R852	1-216-797-11	RES,CHIP	10	5%	1/16W
R853	1-216-295-91	SHORT	0		
R854	1-216-295-91	SHORT	0		
R855	1-216-295-91	SHORT	0		
R856	1-216-295-91	SHORT	0		
R857	1-216-295-91	SHORT	0		
R858	1-216-295-91	SHORT	0		
R859	1-216-805-11	RES,CHIP	47	5%	1/16W
R860	1-216-805-11	RES,CHIP	47	5%	1/16W
R861	1-216-805-11	RES,CHIP	47	5%	1/16W
R862	1-216-833-91	RES,CHIP	10K	5%	1/16W
R863	1-216-833-91	RES,CHIP	10K	5%	1/16W
R864	1-216-833-91	RES,CHIP	10K	5%	1/16W
R902	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R903	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R907	1-216-809-11	RES,CHIP	100	5%	1/16W
R908	1-216-805-11	RES,CHIP	47	5%	1/16W
R909	1-216-823-11	RES,CHIP	1.5K	5%	1/16W
R910	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R911	1-216-833-91	RES,CHIP	10K	5%	1/16W
R912	1-216-833-91	RES,CHIP	10K	5%	1/16W
R913	1-216-809-11	RES,CHIP	100	5%	1/16W
R914	1-216-809-11	RES,CHIP	100	5%	1/16W
R915	1-216-809-11	RES,CHIP	100	5%	1/16W
R916	1-216-809-11	RES,CHIP	100	5%	1/16W
R917	1-216-809-11	RES,CHIP	100	5%	1/16W
R1201	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R1204	1-216-864-11	SHORT	0		
R1205	1-216-864-11	SHORT	0		

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R1206	1-216-864-11	SHORT	0			
R1207	1-216-864-11	SHORT	0			
R1208	1-216-864-11	SHORT	0			
R1209	1-216-864-11	SHORT	0			
R1210	1-216-864-11	SHORT	0			
R1211	1-216-864-11	SHORT	0			
R1212	1-216-864-11	SHORT	0			
R1213	1-216-864-11	SHORT	0			
R1214	1-216-864-11	SHORT	0			
R1215	1-216-864-11	SHORT	0			
R1216	1-216-864-11	SHORT	0			
R1217	1-216-864-11	SHORT	0			
R1218	1-216-864-11	SHORT	0			
R1219	1-216-864-11	SHORT	0			
R1220	1-216-864-11	SHORT	0			
R1221	1-216-864-11	SHORT	0			
R1222	1-216-864-11	SHORT	0			
R1223	1-216-864-11	SHORT	0			
R1224	1-216-864-11	SHORT	0			
R1225	1-216-864-11	SHORT	0			
R1226	1-216-864-11	SHORT	0			
R1227	1-216-864-11	SHORT	0			
R1228	1-216-864-11	SHORT	0			
R1229	1-216-864-11	SHORT	0			
R1230	1-216-864-11	SHORT	0			
R1231	1-216-864-11	SHORT	0			
R1232	1-216-864-11	SHORT	0			
R1233	1-216-864-11	SHORT	0			
R1234	1-216-864-11	SHORT	0			
R1235	1-216-864-11	SHORT	0			
R1236	1-216-864-11	SHORT	0			
R1237	1-216-864-11	SHORT	0			
R1238	1-216-864-11	SHORT	0			
R1239	1-216-864-11	SHORT	0			
R1240	1-216-864-11	SHORT	0			
R1241	1-216-864-11	SHORT	0			
R1243	1-216-833-91	RES,CHIP	10K	5%	1/16W	
R1244	1-216-833-91	RES,CHIP	10K	5%	1/16W	
R1245	1-216-864-11	SHORT	0			
R1246	1-216-805-11	RES,CHIP	47	5%	1/16W	
R1247	1-216-864-11	SHORT	0			
R1248	1-216-864-11	SHORT	0			
R1249	1-216-864-11	SHORT	0			
R1250	1-216-864-11	SHORT	0			
R1252	1-216-864-11	SHORT	0			
R1253	1-216-864-11	SHORT	0			
R1254	1-216-864-11	SHORT	0			
R1255	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R1259	1-216-809-11	RES,CHIP	100	5%	1/16W	
R1310	1-216-864-11	SHORT	0			
R1315	1-216-833-91	RES,CHIP	10K	5%	1/16W	
		<NETWORK RESISTOR>				
RB601	1-233-576-11	RES, CHIP NETWORK 100				
RB602	1-233-576-11	RES, CHIP NETWORK 100				
RB603	1-233-576-11	RES, CHIP NETWORK 100				
RB604	1-233-576-11	RES, CHIP NETWORK 100				
RB605	1-239-409-11	RES, CHIP NETWORK 47				
RB606	1-239-409-11	RES, CHIP NETWORK 47				
RB607	1-233-576-11	RES, CHIP NETWORK 100				
RB608	1-233-576-11	RES, CHIP NETWORK 100				
RB609	1-239-409-11	RES, CHIP NETWORK 47				
RB610	1-239-409-11	RES, CHIP NETWORK 47				
RB611	1-233-576-11	RES, CHIP NETWORK 100				
RB612	1-233-576-11	RES, CHIP NETWORK 100				
RB801	1-233-575-11	RES, CHIP NETWORK 22				
RB802	1-233-575-11	RES, CHIP NETWORK 22				
RB803	1-233-575-11	RES, CHIP NETWORK 22				
RB804	1-233-575-11	RES, CHIP NETWORK 22				
RB901	1-233-575-11	RES, CHIP NETWORK 22				
RB902	1-233-575-11	RES, CHIP NETWORK 22				
RB903	1-233-575-11	RES, CHIP NETWORK 22				
RB904	1-233-575-11	RES, CHIP NETWORK 22				
RB1201	1-233-575-11	RES, CHIP NETWORK 22				
RB1202	1-233-575-11	RES, CHIP NETWORK 22				
RB1203	1-233-575-11	RES, CHIP NETWORK 22				
RB1204	1-233-575-11	RES, CHIP NETWORK 22				
		<THERMISTOR>				
TH501	1-809-020-11	THERMISTOR				
TH502	1-809-020-11	THERMISTOR				
		<TEST PIN>				
TP401	1-535-757-11	CHIP, CHECKER				
TP402	1-535-757-11	CHIP, CHECKER				
TP403	1-535-757-11	CHIP, CHECKER				
TP404	1-535-757-11	CHIP, CHECKER				
TP405	1-535-757-11	CHIP, CHECKER				
TP407	1-535-757-11	CHIP, CHECKER				
TP409	1-535-757-11	CHIP, CHECKER				
TP501	1-535-757-11	CHIP, CHECKER				
TP502	1-535-757-11	CHIP, CHECKER				
TP503	1-535-757-11	CHIP, CHECKER				
TP504	1-535-757-11	CHIP, CHECKER				
TP505	1-535-757-11	CHIP, CHECKER				
TP601	1-535-757-11	CHIP, CHECKER				
TP602	1-535-757-11	CHIP, CHECKER				
TP603	1-535-757-11	CHIP, CHECKER				
TP604	1-535-757-11	CHIP, CHECKER				
TP605	1-535-757-11	CHIP, CHECKER				
TP606	1-535-757-11	CHIP, CHECKER				
TP607	1-535-757-11	CHIP, CHECKER				
TP608	1-535-757-11	CHIP, CHECKER				
TP701	1-535-757-11	CHIP, CHECKER				
TP702	1-535-757-11	CHIP, CHECKER				
TP703	1-535-757-11	CHIP, CHECKER				
TP704	1-535-757-11	CHIP, CHECKER				
TP801	1-535-757-11	CHIP, CHECKER				

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REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CRYSTAL>				
X401	1-760-328-21	VIBRATOR, CRYSTAL				
X701	1-781-486-21	OSCILLATOR, CRYSTAL				
X702	1-781-487-21	OSCILLATOR, CRYSTAL				
**********						
	* A-1316-503-A	GA BOARD, COMPLETE				
		**********				
		<CAPACITOR>				
C301	1-126-971-11	ELECT	470MF	20%	50V	
C302	1-126-971-11	ELECT	470MF	20%	50V	
C303	1-125-898-91	CERAMIC CHIP	0.22MF	10%	50V	
C304	1-163-143-00	CERAMIC CHIP	0.0012MF	5%	50V	
C305	1-125-898-91	CERAMIC CHIP	0.22MF	10%	50V	
C306	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C307	1-109-982-11	CERAMIC CHIP	1MF	10%	10V	
C308	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	
C309	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	
C310	1-126-971-11	ELECT	470MF	20%	50V	
C311	1-126-971-11	ELECT	470MF	20%	50V	
C312	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C313	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C314	1-126-969-11	ELECT	220MF	20%	50V	
C315	1-125-898-91	CERAMIC CHIP	0.22MF	10%	50V	
C316	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C317	1-163-143-00	CERAMIC CHIP	0.0012MF	5%	50V	
C318	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C319	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	
C320	1-126-969-11	ELECT	220MF	20%	50V	
C321	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C322	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C323	1-126-971-11	ELECT	470MF	20%	50V	
C324	1-125-898-91	CERAMIC CHIP	0.22MF	10%	50V	
C325	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C326	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V	
C327	1-163-143-00	CERAMIC CHIP	0.0012MF	5%	50V	
C328	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C329	1-104-664-11	ELECT	47MF	20%	25V	
C330	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	
C331	1-126-969-11	ELECT	220MF	20%	50V	
C332	1-126-967-11	ELECT	47MF	20%	50V	
C333	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V	
		<CONNECTOR>				
CN301	* 1-564-509-11	PLUG, CONNECTOR 6P				
CN302	* 1-564-518-11	PLUG, CONNECTOR 3P				
CN303	* 1-564-510-11	PLUG, CONNECTOR 7P				
CN304	* 1-564-512-11	PLUG, CONNECTOR 9P				
CN305	* 1-564-507-11	PLUG, CONNECTOR 4P				
CN306	* 1-564-507-11	PLUG, CONNECTOR 4P				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D301	8-719-074-57	DIODE FCH10A04				
D302	8-719-974-51	DIODE SB20-03P				
D303	8-719-974-51	DIODE SB20-03P				
		<IC>				
IC301	8-759-648-74	IC L4973V5.1				
IC302	8-759-648-73	IC L4971				
IC303	8-759-259-77	IC PQ20VZ5U				
IC304	8-759-648-73	IC L4971				
		<COIL>				
L301	1-406-659-11	INDUCTOR 10UH				
L302	1-419-436-11	INDUCTOR				
L303	1-406-659-11	INDUCTOR 10UH				
L304	1-406-978-11	INDUCTOR 150UH				
L305	1-406-659-11	INDUCTOR 10UH				
L306	1-406-979-11	INDUCTOR 220UH				
		<IC LINK>				
PS301	⚠ 1-533-790-31	LINK, IC (7A/90V AC, 60V DC)				
PS302	⚠ 1-533-594-31	LINK, IC (2.5A/90V AC, 60V DC)				
PS303	⚠ 1-533-594-31	LINK, IC (2.5A/90V AC, 60V DC)				
		<TRANSISTOR>				
Q301	1-801-806-11	TRANSISTOR DTC144EKA-T146				
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG				
Q304	1-801-806-11	TRANSISTOR DTC144EKA-T146				
		<RESISTOR>				
R301	1-216-684-91	METAL CHIP	24K	0.50%	1/10W	
R302	1-216-072-00	RES,CHIP	9.1K	5%	1/10W	
R303	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R304	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R306	1-216-684-91	METAL CHIP	24K	0.50%	1/10W	
R309	1-216-072-00	RES,CHIP	9.1K	5%	1/10W	
R310	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R311	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R313	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R314	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R315	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R316	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R317	1-216-684-91	METAL CHIP	24K	0.50%	1/10W	
R318	1-216-072-00	RES,CHIP	9.1K	5%	1/10W	
R319	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R320	1-216-688-11	METAL CHIP	36K	0.50%	1/10W	
R321	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R322	1-216-678-11	METAL CHIP	13K	0.50%	1/10W	
R323	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	

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H J

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	* A-1372-698-A	H BOARD, COMPLETE	
		**********	
		<CONNECTOR>	
CN201	* 1-766-376-11	PIN, CONNECTOR (1.5MM)(SMD) 9P	
		<DIODE>	
D201	8-719-033-86	DIODE CL-170D-CD-T	
D202	8-719-033-86	DIODE CL-170D-CD-T	
D203	8-719-800-76	DIODE 1SS226	
D204	8-719-800-76	DIODE 1SS226	
D205	8-719-800-76	DIODE 1SS226	
D206	8-719-800-76	DIODE 1SS226	
D207	8-719-045-51	DIODE SEC2422C	
		<TRANSISTOR>	
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R201	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R202	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R203	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R204	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R205	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R206	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R207	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R208	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R209	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R210	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R211	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R212	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R213	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R214	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R215	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R216	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R217	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R218	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R219	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R220	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
		<SWITCH>	
S201	1-571-404-11	SWITCH, KEY BOARD (POWER)	
S202	1-571-404-11	SWITCH, KEY BOARD (INPUT)	
S203	1-571-404-11	SWITCH, KEY BOARD (AUTO)	
S204	1-571-404-11	SWITCH, KEY BOARD (-)	
S205	1-571-404-11	SWITCH, KEY BOARD (+)	
S206	1-571-404-11	SWITCH, KEY BOARD (CONT)	
S207	1-571-404-11	SWITCH, KEY BOARD (BRT +)	
S208	1-571-404-11	SWITCH, KEY BOARD (MENU)	

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	* A-1388-262-A	J BOARD, COMPLETE	
		**********	
		<CAPACITOR>	
C101	1-126-969-11	ELECT 220MF 20% 50V	
C103	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
		<CONNECTOR>	
CN101	* 1-766-383-11	PIN, CONNECTOR (1.5MM)(SMD)12P	
CN102	1-784-828-11	CONNECTOR, D SUB	
CN103	* 1-766-383-11	PIN, CONNECTOR (1.5MM)(SMD)12P	
CN104	1-784-828-11	CONNECTOR, D SUB	
CN105	* 1-764-177-11	PIN, CONNECTOR (SMD)(1.5MM) 7P	
CN106	1-573-112-11	SOCKET, CONNECTOR 8P	
CN108	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN109	1-793-890-11	JACK, DC	
		<DIODE>	
D104	8-719-800-76	DIODE 1SS226	
D105	8-719-800-76	DIODE 1SS226	
D106	8-719-158-15	ZENER DIODE RD5.6SB	
D107	8-719-158-15	ZENER DIODE RD5.6SB	
D108	8-719-158-15	ZENER DIODE RD5.6SB	
D109	8-719-158-15	ZENER DIODE RD5.6SB	
D113	8-719-800-76	DIODE 1SS226	
D114	8-719-800-76	DIODE 1SS226	
D115	8-719-158-15	ZENER DIODE RD5.6SB	
D116	8-719-158-15	ZENER DIODE RD5.6SB	
D117	8-719-158-15	ZENER DIODE RD5.6SB	
D118	8-719-158-15	ZENER DIODE RD5.6SB	
D119	8-719-077-19	DIODE C10T03QL-11A	
D120	8-719-800-76	DIODE 1SS226	
D121	8-719-800-76	DIODE 1SS226	
		<FUSE>	
F101	⚠ 1-576-260-21	FUSE, MICRO (SECONDARY) (10A/125V)	
F102	⚠ 1-576-260-21	FUSE, MICRO (SECONDARY) (10A/125V)	
		<RESISTOR>	
R111	1-216-017-91	RES,CHIP 47 5% 1/10W	
R112	1-216-017-91	RES,CHIP 47 5% 1/10W	
R113	1-216-017-91	RES,CHIP 47 5% 1/10W	
R114	1-249-389-11	CARBON 4.7 5% 1/4W F	
R115	1-216-017-91	RES,CHIP 47 5% 1/10W	
R116	1-216-017-91	RES,CHIP 47 5% 1/10W	
R117	1-216-017-91	RES,CHIP 47 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R118	1-249-389-11	CARBON	4.7	5%	1/4W F
R119	1-216-089-91	RES,CHIP	47K	5%	1/10W
R120	1-216-025-91	RES,CHIP	100	5%	1/10W
R121	1-216-025-91	RES,CHIP	100	5%	1/10W
R122	1-216-295-91	SHORT	0		
R123	1-216-295-91	SHORT	0		
R124	1-216-295-91	SHORT	0		

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